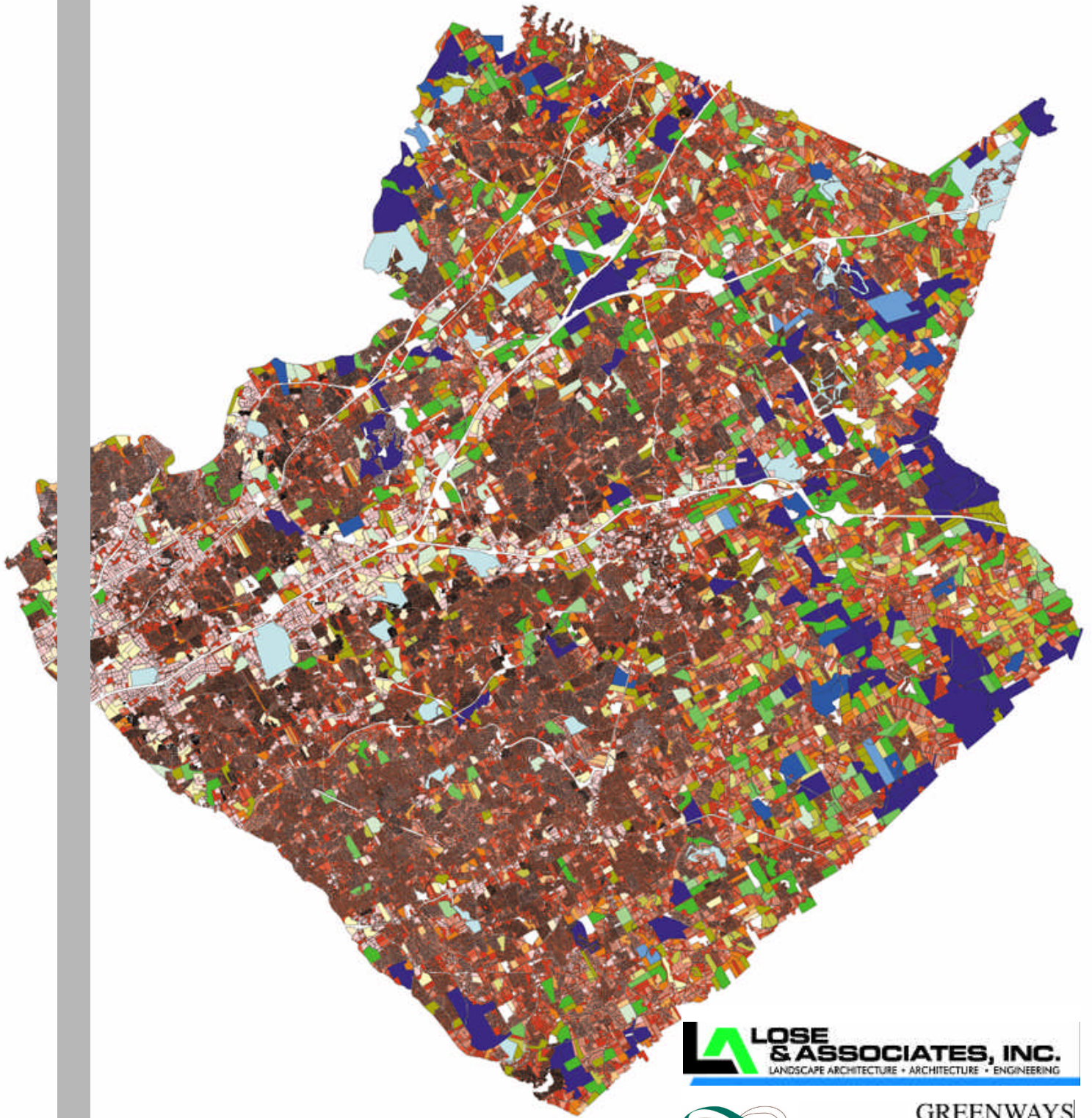


# *Gwinnett County* *Open Space and Greenway* Master Plan



**LOSE**  
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LANDSCAPE ARCHITECTURE • ARCHITECTURE • ENGINEERING

  
INSTITUTE OF  
ECOLOGY  
THE UNIVERSITY OF GEORGIA

**GREENWAYS**  
INCORPORATED  
Landscape Architecture  
Multi-Objective Trail Planning  
Open Space Planning

# **Gwinnett County Open Space and Greenway Master Plan**

## **Acknowledgements**

*We want to thank the following groups and individuals for their support in the development of this master plan.*

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# **Gwinnett County Open Space and Greenway Master Plan**

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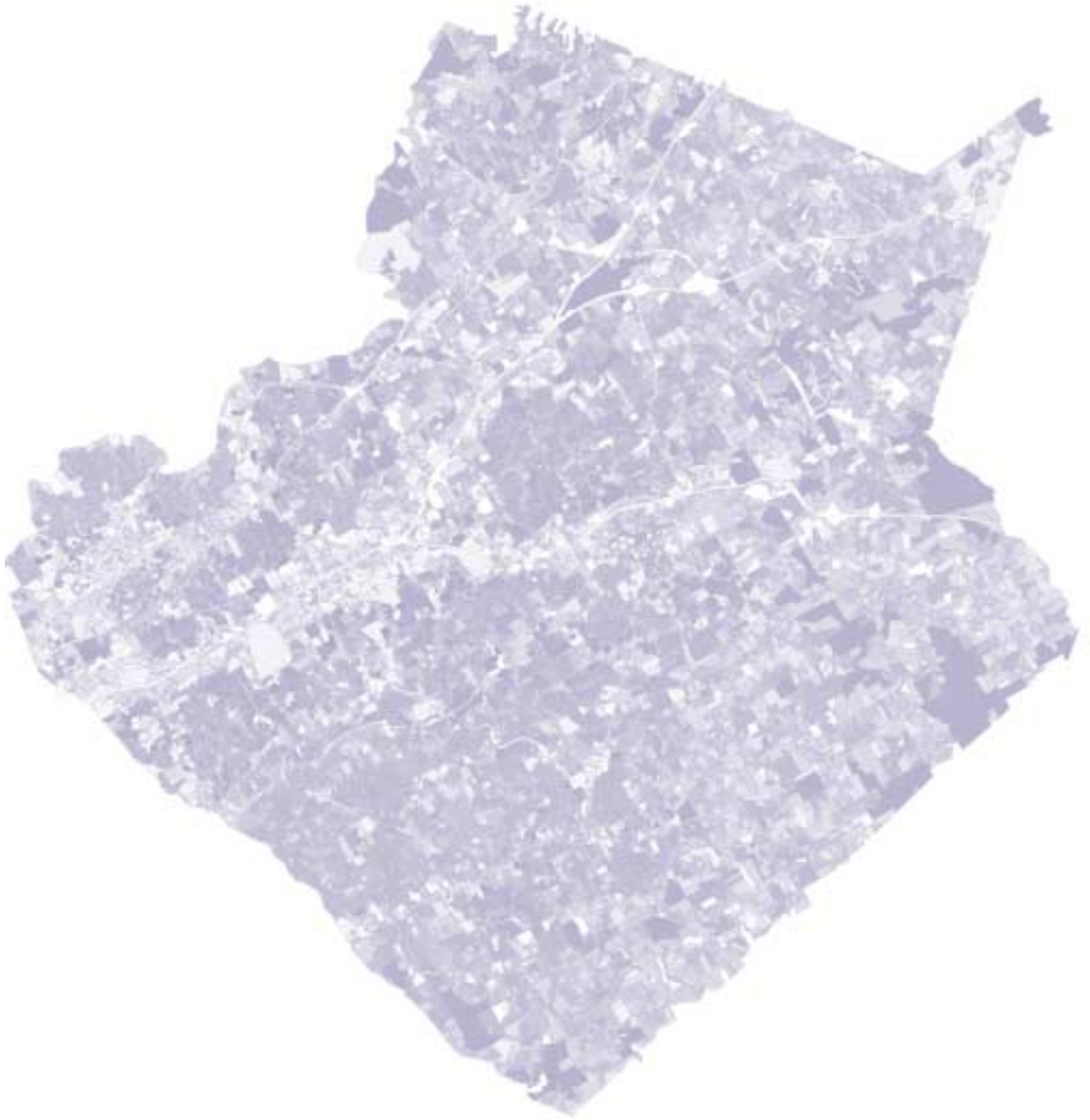
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# Executive Summary



# Executive Summary

This is the Gwinnett County Open Space and Greenway Master Plan, a comprehensive document intended to inform and guide the County's ongoing greenspace preservation program. This is the culmination of an 18-month process by a project team which includes Lose & Associates, Inc., the University of Georgia Institute of Ecology and Greenways Incorporated.

The master plan is divided into six sections followed by an appendix. The six sections are the *Introduction; Overview of Gwinnett County, Currently Protected Greenspace and Targets for Preservation; Open Space Acquisition, Administration, Management and Funding Analysis, and Policy Recommendations; Funding Issues; Land Availability Analysis; and Gwinnett County Greenway System Plan.*

The master planning process was guided by a staff committee and a citizens' steering committee. The staff committee was composed of representatives of various Gwinnett County departments, while the steering committee included representatives of the public from around the County. Public input was also solicited in thirteen public meetings and four focus group meetings with special interest groups. Representatives of Gwinnett County municipalities also provided comments and recommendations at one of the special interest group meetings.

Based on public input and County guidance, the project team identified the following goals for the master plan:

## *Primary Goals*

- Increase recreation opportunities
- Protect and improve water quality
- Increase connectivity via a system of greenway trails
- Reduce environmental impacts of development

## *Secondary Goals*

- Enhance aesthetics throughout the County
- Protect plant and animal habitat
- Promote biodiversity
- Enhance air quality
- Improve transportation opportunities
- Mitigate traffic congestion
- Realize economic benefits of open space and greenways
- Enhance tourism opportunities
- Promote good health
- Protect historic and archeological resources
- Protect cultural resources

Based on these goals and analyses of demographic, economic and environmental conditions in the County, the following targets for preservation were identified:

1. Streams and Floodplains (to protect water quality)  
The County should consider developing a buffer/floodplain acquisition program.
2. High-Quality Watersheds (to protect water quality and provide increased recreation opportunities)  
The County should consider targeting significant open space acquisition toward the Apalachee, Little Mulberry, Alcovy and Big Haynes watersheds in order to protect high quality watersheds and drinking water sources.
3. Parkland in Urbanized Areas (to provide increased recreation opportunities)  
To the extent these are reasonably available, the County should consider identifying and purchasing properties in the highly developed western and central portions of the County in order to provide recreation opportunities. Acquisition in urbanized areas can include development sites that are under-utilized at the present time.
4. Restoration of Stream Banks in Urbanized Areas (to improve water quality and provide recreation opportunities)  
The County should consider coordinating greenspace preservation with restoration projects throughout the County, especially in the more urban areas.
5. Prime Wildlife Habitat (to reduce the environmental impacts of development)  
Habitat documented to contain state and federal threatened or endangered species should be considered a priority.
6. Greenways  
The County should consider establishing greenways in locations providing the greatest connectivity between existing greenspaces and where they can serve as useful transportation corridors.
7. Distribution of Greenspace  
The County should consider acquiring land in both developed and undeveloped areas of the County.

Gwinnett County has recognized that it cannot meet all its greenspace protection goals by acquisition alone, although purchase of lands will continue to play an important role. In consideration of these facts, the following policy recommendations were developed.

#### *Policy Recommendations: Acquisition*

1. The County should consider adopting a system of evaluating properties for fee-simple acquisition based in concordance with the recommended targets for preservation described in Section 3.

2. The County should examine the feasibility of establishing a system for the Purchase of Development Rights (PDRs). The PDR program could be focused on acquiring easements for stream banks and floodplains.
3. The County should consider negotiating multi-purpose easements that combine greenway public access rights with sewer and access easements.
4. The County should consider establishing a system for accepting donations of land. Preparations for receiving such donations could include:
  - enacting an enabling ordinance for land donations
  - establishing a system and responsibility for reviewing and evaluating offers of donations
  - asking the Board of Assessors to evaluate state law regarding the assessment of properties with conservation easements
5. The County should consider establishing *its own* wetlands/streambank mitigation bank to provide a low-cost mechanism to restore and protect streams and wetlands in the County.
6. The County should consider providing incentives for development projects that provide a public access greenway consistent with the Greenway System Plan.

*Policy Recommendations: Planning, Zoning and Regulatory Approaches*

1. The County should monitor the effectiveness of the conservation subdivision ordinance in protecting open space, and consider changes as necessary.
2. The County should consider extending the option for conservation subdivisions to other zoning districts.
3. The County should work to increase public awareness of the economic and quality-of-life benefits of mixed-use development, greenways and higher density residential developments.
4. The County should consider mapping priority protection areas and development nodes on future land use maps.
5. The County should consider creating a transferable development rights program, should the state enabling legislation be amended.
6. The County should consider providing redevelopment incentives.
7. The County should consider a program to provide highway buffers.

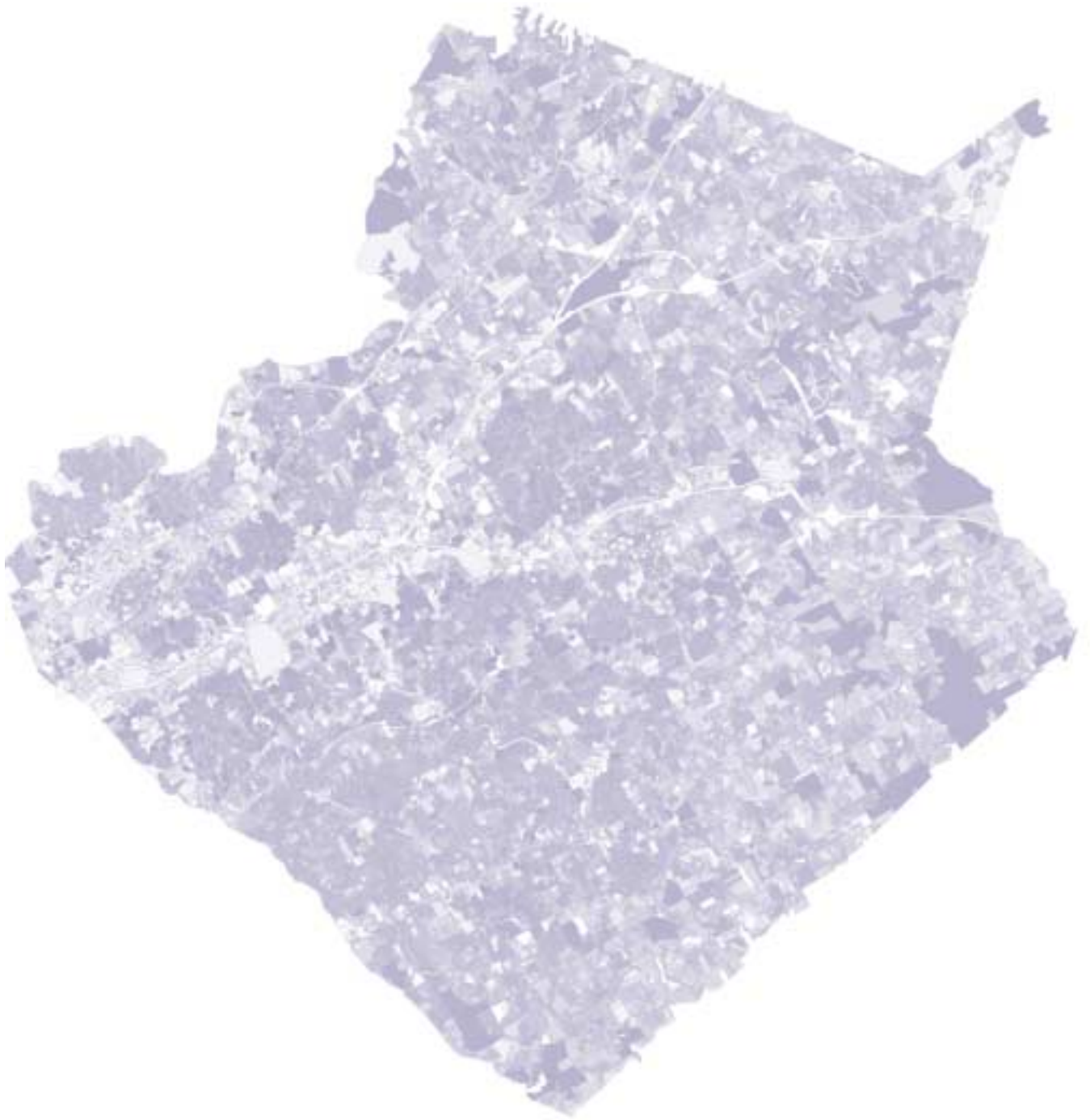
Effective management of a major greenspace program may require some changes in administrative processes in Gwinnett County, although these can be made without significantly altering any departmental structures. It is recommended that a full-time Open Space Coordinator be hired with other full-time positions likely to prove necessary in the future. The Department of Community Services is the most logical choice to serve as the lead department in administering the master plan, under the

direction of the County Administrator. It will be necessary to coordinate greenspace protection with other departments, including Planning and Development, Public Utilities, Transportation, Law, Support Services, Police Services and Financial Services, each of which has a unique role to play. The Transportation, Public Utility and Planning Departments will need to appoint a staff person to oversee open space and greenway activities within their divisions. These appointees will be responsible for working with the open space coordinator on intra-division acquisition, planning and construction matters.

Specific geographic targets for greenspace preservation have also been identified in Section 5, along with detailed maps of undeveloped land throughout the County.

There are special concerns related to greenway development, and a greenway system plan is presented in Section 6. Design standards, regulations and management recommendations are provided, along with proposed greenway routes. Two pilot greenway projects have been identified in this section.

# Section 1



## Introduction

### Gwinnett County's Greenspace Program

Gwinnett County is recognized as a leader in both Metro-Atlanta and the Southeast for its rapidly developing Open Space and Greenspace Program. After years of being in the forefront in attracting new homes and businesses, the Gwinnett County Board of Commissioners initiated policies and secured funding to preserve open space throughout the County.

For the past five years, the County has pursued an aggressive program of passive parkland and open space acquisition. Tracts of land throughout the area have been targeted for purchase to preserve land for recreational opportunities. Since 1996, the amount of open space and parkland in Gwinnett County has grown from just over 1,800 acres to over 7,200 acres. Of the land purchased, over 5,300 acres has been targeted for passive recreation uses. The leadership of the Board of Commissioners and the overwhelming support of the citizens to fund open space preservation has led to the development of this Open Space and Greenway Master Plan.

### 1A. What is an Open Space and Greenway Master Plan?

*Open space* or *greenspace* is land in a natural or minimally developed condition that provides community benefits in the form of environmental protection and passive recreation opportunities. *Greenways* are linear corridors of greenspace that frequently contain trails for recreational use and non-motorized transportation. An open space and greenway master plan is a comprehensive guide to protecting greenspace: what, where and how to protect it.

This report presents the results of that master planning effort. It is the culmination of more than a year of research, numerous public meetings and regular discussions with County officials and a citizen advisory committee. It is intended to provide a comprehensive program for greenspace protection in the County. As such, it is not limited to recommendations for park acquisition, but presents policies for managing the type and patterns of development in ways that result in additional open space preservation. It is understood that many of these recommendations will not be implemented immediately but are provided so that they may be considered in future comprehensive planning efforts and updates of development policies.

This report is organized into six sections and appendices. This section provides an introduction to the benefits of greenspace. Section 2 is an overview of the demographic and environmental context of Gwinnett County, with recommended targets for preservation. Section 3 presents the policy recommendations to create a comprehensive system of greenspace protection. Section 4 presents funding options. Section 5 presents results of a land availability analysis performed as part of this study. The sixth section is

dedicated to greenways and proposes two pilot projects that combine greenspace protection with elements of a greenway. Ancillary materials, such as sample documents from other communities, are included in appendices. Throughout the document the term *greenspace* is used interchangeably with *open space*, although the term *greenway* is reserved for linear elements of the greenspace system.

## 1B. How Greenspace Benefits Gwinnett County

Interaction with nature is something that all people enjoy. People use natural settings for relaxation, education and recreation. Thus, how we manage our natural environment directly influences our quality of life. In Gwinnett County, rapid and sustained growth has greatly reduced the amount of available greenspace. By working now to build a system of greenspace and passive recreation areas, Gwinnett County can protect its natural resources, maintain a high quality of life and enjoy economic benefits.

### *Water Quality Benefits*

There are four ways in which greenspace can protect and enhance water quality: by protecting riparian zones; by protecting floodplains; by limiting impervious surfaces; and by protecting groundwater recharge areas.

#### Riparian Zone Protection

The health of watersheds depends greatly on the condition of the streamside areas (the riparian zone). Targeting greenspace preservation efforts to these riparian lands and floodplains can benefit water quality and aquatic habitat, in addition to providing recreational and aesthetic benefits. Services provided by naturally vegetated riparian buffers include: filtering pollutants from runoff; stabilizing stream banks; moderating stream temperature; and providing woody debris for aquatic habitat. Currently, buffers ranging from 25 ft to 100 ft are protected by state and local laws on streams in Gwinnett County. However, existing developed areas were grandfathered under these rules, so many urban and suburban streams lack healthy riparian zones. To restore and protect these buffers, the County may need to acquire them in some manner.

#### Floodplain Protection

Protecting floodplains in a natural, undeveloped state is a very efficient means of controlling floodwaters and maintaining a healthy river ecosystem. Flooding is a normal occurrence that benefits both aquatic organisms and the floodplain plant community. By keeping development out of floodplains, these natural systems are maintained, property damage is minimized and flood storage capacity is maintained. In recent years, Gwinnett County has worked hard to limit growth in floodplains. Providing permanent protection of these lands and incorporating them into the County greenspace system will ensure that these benefits will always be available to residents and property owners. During non-flood periods, the floodplain can be available for passive recreation.

#### Limiting Impervious Surface Coverage

When it rains, stormwater runoff is generated from impervious surfaces such as roads, parking lots and roofs. This runoff, which may carry oil, metals and other contaminants, is frequently routed to streams by storm drains. Gwinnett County has a progressive stormwater management program to improve the water quality of this

runoff. However, the best way to deal with the problem is to minimize the amount of impervious surfaces to prevent runoff from occurring. One way to do this is to provide large areas of greenspace.

#### Groundwater Recharge

Rainwater that infiltrates into the soil can recharge groundwater aquifers. Targeting greenspace protection to important groundwater recharge zones maintains both the quantity and quality of these subsurface water sources.

#### *Economic Benefits*

Greenspace offers numerous economic benefits to Gwinnett County. Proximity to greenspace has been shown to raise the value of immediately adjacent properties by as much as 5 to 20 percent. For example, in a residential development in Apex, North Carolina, new lots situated on greenways were priced \$5,000 higher than comparable lots not located on the community greenway system. One result of these higher values is an increase in property tax revenues. Over time, this extra revenue can repay the cost of acquiring and protecting the greenspace. Commercial and office park developers also realize higher rental values and profits from properties adjacent to protected greenspace.

American Lives, a real estate research firm, completed a national study for the National Homebuilders Association of the top reasons that people chose their new home. Walking and bike paths are viewed as extremely important to 74% of buyers nationally. Furthermore, the availability of greenspace is important to corporate executives in considering where to locate or relocate offices and production facilities.

In Gwinnett County, as in other areas, many developers build upscale developments around golf courses or man-made lakes. Lots along these natural and man-made resources sell at a higher price than those removed from these elements. However, research has shown that many residents of these communities don't play golf or actively use the lakes—they are attracted by the proximity to undeveloped open space. Unimproved greenspace and passive parks can serve the same functions at lower cost to the developer (and reduced impacts to the environment). County and municipal parks likewise serve as magnets to home buyers. In Suwanee, George Pierce Park is quickly becoming enveloped by residential development. Residents want to live close to the park to take advantage of open space and trails, which connect to the Richard Trice Trail, currently the only off-road greenway located in the County.

Publicly available greenspace and greenways can also serve as tourist attractions, generating increased economic activity and sales tax revenues. Some Gwinnett County parks already attract residents from across the Atlanta metropolitan area; as the County expands and connects its greenspace system, it has the potential to become a regional destination for outdoor recreation. Greenways are especially valuable in this regard. The State of Missouri, for example, spent \$6 million to create the 200-mile KATY Trail,

which, in its first full year of operation, generated travel and tourism expenditures of more than \$6 million.

### *Transportation Benefits*

Gwinnett County has grown in a low-density pattern with automobile use as the almost exclusive mode of transportation. As a means to reduce traffic congestion, the County is shifting its transportation planning to include a variety of modes of travel for local residents. The Comprehensive Transportation Plan adopted in September of 2001 has identified numerous transportation alternatives to single family cars including bus service, sidewalks, bicycle lanes, bicycle paths and multi-use paths. A network of greenway corridors is an important component of such a plan.

Greenway corridors throughout Gwinnett County can serve as extensions of the road network, offering connections between home, work, schools, libraries, parks, shopping areas, transit stops and tourist attractions. Greenway-based bikeways and walkways are most effective for certain travel distances. National surveys by the Federal Highway Administration have shown that most Americans are willing to walk as far as two miles to a destination, and bike as far as five miles. Destinations should be linked to multiple origins throughout the community with a combination of off-road trails and on-road bicycle and pedestrian facilities.

### *Air Quality Benefits*

Greenspace improves air quality simply by letting plants do their jobs; plants convert carbon dioxide into oxygen, filtering pollutants in the process. As alternative transportation corridors, greenways can reduce automotive use, providing additional improvements to local air quality. The best example is in trips to parks. For instance, residents who live adjacent to George Pierce Park often drive to the park because there are no trail connections to the residential area. This is a common issue throughout the County and impacts air quality in a negative way. The existing system of community parks dispersed throughout the County lends itself well to greenway connections.

### *Cultural Benefits and Preservation of Historic Resources*

Greenspace can enhance a community's sense of place through protection of its unique natural and historic resources. Preservation of the historic landscape provides a tangible and visible link to a community's past, helping to define the community identity and increasing awareness and appreciation of local history. Additionally, preserving cultural sites within the greenspace network provides controlled public access that protects resources and enhances interpretive opportunities.

Even small pieces of greenspace can serve as community builders. A successful urban greenspace or greenway project can serve as a kind of town commons or main street where neighbors meet, children play and community groups gather. Some communities sponsor "Greenway Days" to celebrate the outdoors and local traditions. Various walking and running events are also held on greenways to support charities or extend

traditional sporting events. Many civic groups adopt segments of parks, greenspace and greenways for clean-up, litter removal and environmental awareness programs.

### *Enhancing Aesthetics*

Greenspace adds comfort to our life by making our communities more inviting. Greenspace can do this by buffering adjacent land uses, thus presenting a more desirable view. Additionally, greenspace offers considerable aesthetic benefits. While it may sound simplistic to say “people like greenspace,” it can be proven that some companies considering relocation include greenspace resources as a part of their evaluation for potential new homes. They recognize that there is value in having protected greenspace and that their employees enjoy the prospect of natural areas near work and home.

### *Safety and Security Benefits*

Although some people express concerns that parks and greenways may harbor criminal activity, a 1998 study, *Rail-Trail and Safe Communities*, written by Tammy Tracy and Hugh Morris of the Rails-to-Trails Conservancy in cooperation with the National Parks Service, Rivers, Trails and Conservation Assistance Program presents documentation of a very safe environment. For example, the national rate of burglary in urban areas is 1,117 incidents per 100,000 inhabitants. None of the urban rail-to-trails in this study reported burglary to adjacent homes in 1996. Only 5% of urban rail-to-trails reported trespassing and 18% reported unauthorized motorized use. For suburban rail-to-trail projects only one burglary was reported and a 3% rate of trespassing was reported. Unauthorized motorized use of the trails dropped to 14%. These statistics point out the low crime rates associated with trails and greenways.

In addition to the low crime rates, Gwinnett County has active patrols in all their parks. The addition of greenways throughout the County will expand the responsibilities of park police, and present added challenges for park security.

The *Rail-Trail and Safe Communities* study shows that parks and greenways have very low incidences of reported criminal activity. Greenspace typically attracts local residents who use the facility frequently, creating an environment that is virtually self-policing and very safe.

### *Health and Recreation Benefits*

Access to greenways encourages more people to walk or bike to short-distance destinations, which improves the health of residents. Studies have shown that as little as 30 minutes a day of moderate-intensity exercise (such as bicycling, walking or in-line skating) can significantly improve a person’s mental and physical health and prevent certain diseases. Providing opportunities for participation in these outdoor activities, close to where people live and work, is an important component of promoting healthy lifestyles for Gwinnett County residents.

### *Plant and Animal Habitat Benefits*

Greenspace provides essential food sources and, in many cases, access to water that is required by all wildlife. While larger areas of greenspace are capable of supporting larger species and larger populations of wildlife, small and linear greenspace corridors can adequately serve as a viable habitat for many species. In addition to providing habitat, greenways may provide movement corridors for small terrestrial wildlife, helping to maintain the integrity of species gene pools. Even in urban areas, restoration and preservation of greenspace can provide significant benefits to more tolerant species of wildlife. Though common, such urban wildlife may be greatly valued by local residents.

## 1C. Master Plan Development

### *History of Greenspace Protection in Gwinnett County*

As summarized in the introduction of this Master Plan, Gwinnett County has focused significant energy and financial resources on the acquisition and protection of open space and passive park properties. The properties acquired have been selected to meet needs identified in the Comprehensive Parks and Recreation Master Plan completed in January 1996 by Lose & Associates, Inc. and the Gwinnett County Parks and Recreation 2000 Capital Improvements Plan completed in January of 2000 by EDAW, Inc. Both of these plans placed a high priority on land acquisition and identified areas with parkland deficiencies. The continuing efforts of the County were reinforced with the development of the state's Georgia Community Greenspace Program. With the development of this program, the County formed coalitions with many of its municipalities to submit an application for state funds. In its initial application for Georgia Community Greenspace funds, Gwinnett County proposed the following program of greenspace protection:

Potential Lands to be Protected:	Acres
Chattahoochee River National Recreation Area Future Expansion	2,606
Existing County Parkland and Other Lands to be Protected	2,277
New County/City Parkland to be Protected (Passive)	1,366
Existing Subdivision Open Space to be Protected	850
Future Conservation Subdivisions	13,492
Flood Plains and Buffers	23,000
<b>Total:</b>	<b>43,591</b>

The table below expresses the status of existing and potential open space relative to the state of Georgia's goal for 20% protection:

	Acres
Total Gwinnett County Acreage	277,017.00
20% of County Acreage	55,403.00
Existing Protected Lands	2,997.53
Potential Protected Lands	43,591.00
Total:	46,588.53
<b>Deficit to be Identified for Protection (08/03/2001)</b>	<b>8,814.47</b>

### *Project History*

During the development of the County's greenspace grant application, and the recognition of the scale of the open space protection efforts that would be required to protect approximately 55,000 acres, it was determined that the County should develop a

county-wide master plan to guide long range planning for open space and greenways. In the fall of 2000, Gwinnett County awarded a contract to create an Open Space and Greenway Master Plan to a team consisting of Lose and Associates, University of Georgia Institute of Ecology and Greenways Incorporated. On October 30, 2000, the master planning team held its first public meeting to present the project, along with an overview of open space and greenway issues. Attendees were invited to serve on a citizens' steering committee, and interested citizens were asked to complete an application form.

Following this initial meeting, the planning team worked with staff of the Parks and Recreation Department to establish an overall project schedule and determine the best methods for soliciting input from the public, different interest groups, the various County departments, and the municipalities within the County. Two formal committees were established: (1) a staff steering committee composed of representatives of County departments; and (2) a citizens' steering committee intended to be representative of different geographic areas and interest groups. The purpose of both committees, which were to meet at least six times, was to provide information, general direction and feedback on the planning process. Public meetings and discussions with various interest groups were also planned.

The master planning effort was divided into two phases. Phase One included information collection, public input and analysis of land availability. Thirteen public meetings, six citizens' steering committee meetings, six staff committee meetings and meetings with several special interest groups were held. The final product was an Outline Master Plan, which summarized the findings of the meetings and presented a preliminary list of policies to guide the open space program. A land suitability matrix and a property evaluation criteria process were also developed. Phase Two included additional staff and citizen committee meetings, meetings with the directors of Gwinnett County departments and meetings with representatives of municipalities. Finally, the project team developed the Final Master Plan—this document.

#### *Public Input Meetings*

Public meetings were held in February, March, April, May and June of 2001 in locations around Gwinnett County. Each meeting was conducted by Lose & Associates and included two presentations: one by Greenways Incorporated, titled *Open Space: A National Perspective*, and one by the UGA Institute of Ecology titled *Preserving Greenspace in Gwinnett County: Regulatory and Funding Alternatives*. These presentations were designed to provide an introduction to the benefits of greenspace and ways to protect it.

Following each presentation was a question and answer session and opportunity for public input and discussion. Citizens were asked to identify potential open space properties and routes for greenways. Discussions covered issues such as public access,

uses of greenspace, tools for protection and methods for funding acquisition. Detailed meeting notes are provided in Appendix A.

#### *Citizens' Steering Committee Meetings*

The Citizens' Steering Committee met regularly throughout the planning process to provide feedback to the project team. After several months of meetings, the planning team developed a set of questions and issues that needed to be addressed by the steering committee. In May, 2001, a full day workshop was held with the steering committee to address these concerns, with the goal of developing a set of goals and approaches for the master plan.

At the workshop, the Citizens' Steering Committee identified the following priorities related to greenspace preservation:

- Developing incentives for preservation of open space
- Changing zoning regulations to facilitate open space preservation
- Linking open space to neighborhoods, schools and public facilities was the highest priority

Land preservation methods were prioritized as follows:

- Fee simple purchase
- Incentive policies tied to zoning and development regulations
- Acquisition by donation to a land trust or other non-profit group

Funding sources were prioritized as follows:

- Special Purpose Local Option Sales Tax for purchase by the County
- County General Funds for purchase by the County
- Georgia Greenspace Funds to be used by the County and municipalities

Following the meeting, the project team worked further with both the staff and citizen committees to convert these priorities, along with other input from the public, into a set of primary and secondary project goals. These goals are presented in the next section.

#### *Recommendation Overview*

At this point, the project team had sufficient information to develop a set of policies to implement the open space and greenway program in Gwinnett County. These policy recommendations, presented in Section 3, cover acquisition, regulatory and planning approaches, and administration and management. Recommendations for geographically targeting preservation efforts also emerged out of the priorities and are presented at the end of Section 2. Recommendations on creating a greenway system were developed (see Section 6), and information on funding sources was also assembled (Section 4). Finally, working with staff, the project team developed four potential pilot projects, outlined in Section 6.

## 1D. Goals of the Gwinnett County Open Space and Greenway Master Plan

These goals were developed by the project team in close cooperation with the Citizens' Steering Committee and the Staff Steering Committee, based on input from a range of sources as described in Section 1C. The recommendations provided later in this report are intended to meet these goals.

### *Primary Goals*

The primary goals below drive both the targeting of greenspace and the methods of greenspace preservation.

- Increase recreation opportunities

Recreation opportunities normally associated with quiet areas of traditional parks—such as areas for a quiet walk, a spot to read a book, bird and wildlife observation or simply relaxing and watching nature—are ideally suited for open space areas.

Greenways provide opportunities for more extensive walking, running and cycling. In open spaces with access to streams and rivers, there are opportunities for such pastimes as paddling and swimming.

- Protect and improve water quality

Faced with increasing regulatory controls on drinking water, stormwater management and wastewater management, Gwinnett County benefits by maximizing the water quality benefits of its greenspace program. As discussed in Section 1B, greenspace can protect and improve water quality in a number of ways.

- Increase connectivity via a system of greenway trails

A comprehensive greenway system will not only increase recreational opportunities but will provide environmentally friendly transportation options. The greenway system should provide numerous access points throughout the County. Sidewalks and bike lanes should be developed to complement the multi-use trails and make additional links and loops within the greenway system.

- Reduce environmental impacts of development

A good greenspace plan is more than just a blueprint for parks and trails; it is an integrated approach to protecting natural resources and ensuring that the patterns of development allow for sufficient open space and a high quality of life. Although acquisition may be the focus of Gwinnett County's greenspace program, it alone cannot provide sufficient open space to meet the needs of its residents. Therefore, this plan includes policy recommendations to manage development in ways that result in additional greenspace preservation and environmental protection. These recommendations can help guide future revisions of the County's comprehensive plan, zoning code and development ordinances.

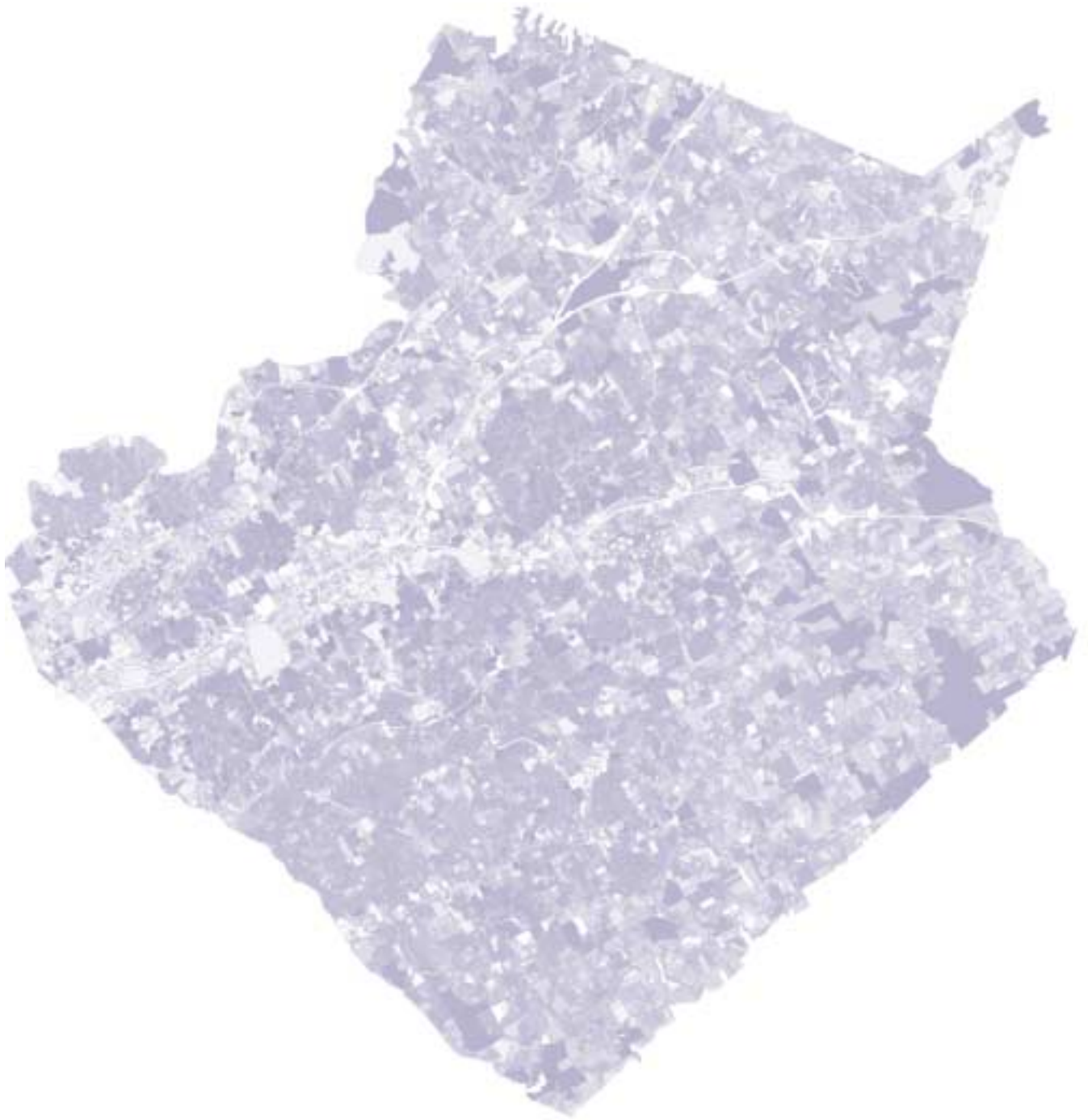
### *Secondary Goals*

The secondary goals were not the major drivers of the policy recommendations, but to the extent feasible, the recommendations are intended to meet these goals as well.

- Enhance aesthetics throughout the County
- Protect plant and animal habitat
- Promote biodiversity
- Enhance air quality
- Improve transportation opportunities
- Mitigate traffic congestion
- Realize economic benefits of open space and greenways
- Enhance tourism opportunities
- Promote good health
- Protect historic and archeological resources
- Protect cultural resources
- Promote safety and security of open space and greenway systems

The next section of the report provides background on the demographic, economic and natural environment of Gwinnett County, all of which will impact the County's open space and greenways program. It also presents a summary of existing greenspace in the County and makes recommendations on how greenspace can be targeted to meet these primary and secondary goals. Sections 3 and 6 present the policies for meeting these goals.

## Section 2



## Section 2.

# Overview of Gwinnett County, Currently Protected Greenspace and Targets for Preservation

## 2A. Overview of Gwinnett County: Demographics, Economics and Natural Environment

Located northeast of the city of Atlanta, Gwinnett County is part of the 10-county core that makes up the Atlanta metropolitan region. It is a large county by Georgia standards, encompassing 437 square miles of rolling Piedmont land. Gwinnett County is well known for its rapid growth and vibrant economic development. In 1970, the County had a population of 72,349. In 2000, that number had grown to 588,448—an increase of 516,099 people in just 30 years.

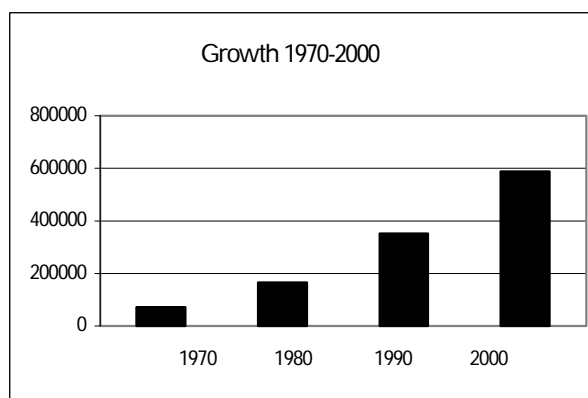
### Demographics

Between 1990 and 2000, Gwinnett County experienced a population increase of 66.7% compared to a 26.4% overall gain in Georgia and a 38.9% gain in the Atlanta region. This is actually lower than the growth rate in previous decades. Between 1970 and 1980, the County grew by 130.7%, while from 1980 to 1990 it experienced a 111.5% increase.

COUNTY	POPULATION		NET INCREASE	PERCENT CHANGE
	1990	2000		
Cherokee	90,204	141,903	51,699	57.3
Clayton	182,052	236,517	54,465	29.9
Cobb	447,745	607,751	160,006	35.7
DeKalb	545,837	665,865	120,028	21.9
Douglas	71,120	92,174	21,054	29.6
Fayette	62,415	91,263	28,848	46.2
Fulton	648,951	816,006	167,055	25.7
<b>Gwinnett</b>	<b>352,910</b>	<b>588,448</b>	<b>235,538</b>	<b>66.7</b>
Henry	58,741	119,341	60,600	103.2
Rockdale	54,091	70,111	16,020	29.6

Source: U.S. Census Bureau, 2000

The population density of 1,347 persons per square mile is moderate, especially when compared to neighboring DeKalb County's 2,484.6 persons per square mile. As shown on the enclosed map, *2000 Population Density by Census Tract*, much of the population is concentrated in the central and southwest portions of the County. However, the northern and southeastern areas of the County have experienced much of the growth of the last decade, as illustrated in the map *Population Growth 1990-2000 by Census Tract*. The County expects to continue growing rapidly over the next 25 years, exceeding a million people by 2025 according to its own estimates.



According to the 2000 census, persons under 18 represent 28.2% of the population and persons 65 and older represent 5.4%. The largest age groups are:

- persons 25 to 34 – 104,688
- persons 35 to 44 – 115,719
- persons 45 to 54 – 81,237

The average household has 2.88 people and the median age is 32.5 years. The Atlanta Regional Commission's (ARC) *Long-Range Outlook for the Region* reports that baby boomers are expected to move from the area once they reach retirement age and the region will continue to be relatively younger than the nation with a predicted median age of 35.4 in 2020, as compared to the national forecast median age of 38.3. Young households with children have a large demand for recreation space and are heavy users of greenways.

### *Employment and Income*

The median household income in Gwinnett County is \$56,082, well above the Georgia median of \$36,372. Gwinnett County has the second lowest poverty rate in the Atlanta region, at 5.2% (according to the *Poverty Rates by Jurisdiction, 1995*). Gwinnett is one of five counties considered to be the economic core of the Atlanta region by the ARC, the major regional planning organization. According to the ARC, employment is centered in these five counties and accounted for 92% of the region's jobs in 1998 and 86% of the region's net employment increase since 1990. This rate is slowing somewhat as growth moves to adjacent counties, but still advances at an above-average pace.

In 1980, Gwinnett County was largely an Atlanta bedroom community with a low ratio of jobs to residents. Since that time, Gwinnett County's job base has more than quadrupled from 48,500 to 254,600, according to ARC estimates, increasing even faster than the population. Economic growth has been distributed throughout existing industries, with the largest gains seen in services, retail trade, wholesale trade and manufacturing.

#### **JOBS – TYPES, GROWTH and COMPARISON TO OVERALL REGION**

	<u>Gwinnett County</u>			<u>Atlanta Region (includes Gwinnett)</u>		
	<u>1980</u>	<u>1990</u>	<u>1999</u>	<u>1980</u>	<u>1990</u>	<u>1999</u>
Miscellaneous	320	1,400	3,700	3,084	8,000	15,700
Construction	5,889	9,700	22,400	48,768	64,300	97,100
Manufacturing	11,056	26,300	34,300	135,923	153,900	173,600
Trans., Comm., Util.	1,828	4,300	11,450	82,654	126,500	176,000
Wholesale Trade	6,988	23,700	41,800	82,525	139,100	173,200
Retail Trade	7,439	31,400	58,200	145,654	261,500	343,500
Finance, Insur., Real Est.	2,369	10,100	14,100	71,737	113,800	134,400
Services	6,237	28,500	67,500	181,549	349,700	566,100
Government	6,388	16,600	23,000	149,263	209,200	238,900

*Source:* Atlanta Regional Commission

Retail employment centers include three major malls: Gwinnett Place, the Mall of Georgia (largest in the southeast), and the recently opened Discover Mills. Peachtree Corners in the Norcross superdistrict has become a center for high-tech firms while Central Gwinnett has seen large gains in business services and health services employment. (A superdistrict is a geographic area composed of multiple census tracts.) Manufacturing and retail trade are also strong in this area. The North Gwinnett, East Gwinnett and Snellville superdistricts still include large, undeveloped regions but are experiencing rapid growth in retail trade and services. The Lilburn superdistrict remains primarily residential with expansion predicted for local-serving jobs, especially in retail trade, construction and services. This trend mirrors that of the whole metropolitan region, in which the services industry is predicted to claim one of every four new jobs created in Gwinnett between 1990 and 2020, more than doubling in size over this period. Retail trade employment will nearly double, up 95%, to be the region's second fastest growing industry between 1990 and 2020 (Atlanta Regional Commission).

In 2001, Gwinnett County earned a triple-A rating for the fifth consecutive year from Moody's, Fitch and Standard & Poor's. As reported in the *2000 Gwinnett County Citizens' Report*, services are up and the property tax rate is down, having been cut 23% since 1996. This is thanks, in part, to the citizens' willingness to support Special Purpose Local Option Sales Taxes.

### *Housing*

The high rate of home ownership in Gwinnett County is another factor to consider when planning community amenities. The Census Bureau reports 209,682 housing units in 2000 with a 72.4% rate of ownership. Slightly higher figures are reported in an Atlanta Regional Commission report dated December 20, 2000. According to that report there are 218,247 housing units in the County which break down as follows:

- 165,180 single family units for a 75.7% share
- 47,887 multifamily units for a 21.9% share
- 5,180 mobile home units for a 2.4% share

### *Transportation*

The Atlanta metropolitan region contains over 361 miles of multi-lane highways and nearly 2,000 miles of arterial roadways with the majority of roads located on the north side of Atlanta. Cherokee, Cobb and Gwinnett have over 38% of the region's roadways. Major highways serving Gwinnett County are I-985, I-85 and Georgia State Highway 316. These roads link retail and business activity centers while providing access to Atlanta and adjacent counties. A major highway expansion project, known as the Northern Arc, is being planned by the state of Georgia. It will run through the County, providing improved traffic flows in the northern section of the County. Funding and the time frame for construction have not been confirmed at this time.

The region's public transit, Metropolitan Atlanta Rapid Transit Authority (MARTA), does not serve Gwinnett County and is unlikely to in the future. Gwinnett County has developed its own public transit system, which began providing express bus service to Atlanta in 2001. In addition to the express bus services, local bus service will begin in the County in the fall of 2002.

The ARC Board has approved an allocation of \$5 million over a five year period to fund the Livable Center Initiative (LCI) program. The purpose of these studies include promotion of mixed uses and increased connectivity, access to a range of travel modes and others during the first two years of the program. The cities of Duluth, Norcross and Suwanee were awarded study grants, as well as Gwinnett County, for the activity centered around Discover Mills and the Gwinnett Civic & Cultural Center. An additional \$350 million has also been allocated by the ARC Board for funding of projects recommended by the LCI studies.

#### *Natural Environment: Terrestrial*

Gwinnett County is located in the Piedmont physiographic province, characterized by rolling hills and clay soils underlain by crystalline rock. Originally mostly forested, the County was cleared for row-crop agriculture early in the nineteenth century. Poor farming practices led to loss of much of the fertile topsoil, reducing the economic viability of row cropping and leading many producers to convert to forestry or livestock. These land uses have declined greatly since the Atlanta development boom reached the County in the 1970s and 1980s.

The forested land in Gwinnett County has undergone several significant changes. The original forest was a climax forest, dominated by Oaks, Hickory and Chestnut trees. Since the time of settlement, the forest has undergone repeated harvesting and clearing to make way for agriculture. At the height of the County's cotton-growing period in the late nineteenth century, much of the forest had given way to major cotton growing operations. With the end of the cotton period, much of the County converted to dairy farming to support the growing demands of Atlanta. Both of these agriculture practices required the removal of forested areas.

On a large scale, these agricultural practices have ended and portions of the County have revegetated with second growth forest. The latest forest survey completed by the U. S. Department of Agricultural Forest Service, *Forest Statistics for Georgia, 1997*, reported that the County has 104,000 acres of forested land; the ARC reported in 1995 that Gwinnett had 89,567 acres of forested land. The discrepancy is likely due to differences in methods of estimation. Both estimates represent a decline from earlier estimates of 131,000 – 137,000 acres in the late 1980s (Forest Service and ARC estimates). As in the past, the forest land in the County continues to cycle with different land use patterns and development activities.

Small portions of the County contain rock outcrops, which support rare and sensitive plant communities. In Eastern Gwinnett County, some streams wind through steep valleys overlooked by bluffs, which also are home to uncommon plant assemblages. Some of these areas still retain healthy hardwood forests and impressive displays of native wildflowers, including some rare and endangered species. Such areas should be targets for preservation. Plant species listed as endangered, threatened or unusual are shown in the table below.

*State Protected Plants Known from Gwinnett County*

Little Amphianthus	<i>Amphianthus pusillus</i>
Moccasin Flower	<i>Cypripedium acaule</i>
Golden Slipper	<i>Cypripedium calceolus</i>
Harper Wild Ginger	<i>Hexasylis shuttleworthii</i> var. <i>harperi</i>
Goldenseal	<i>Hydrastis canadensis</i>
Black-spored Quillwort	<i>Isoetes melanospora</i>
Bay Star-vine	<i>Schisandra glabra</i>
Puck's Orpine	<i>Sedum pusillum</i>
Ozark Bunchflower	<i>Veratrum woodii</i>
Piedmont Barren Strawberry	<i>Waldsteinia lobata</i>

*Natural Environment: Aquatic*

Gwinnett County is situated at the headwaters of multiple watersheds: the Oconee, the Apalachee, the Alcovy and the Yellow, as well as tributaries of the Chattahoochee River. Unfortunately, a number of streams in the western and southern portions of the County have already been impacted by development and have been placed on the "303D" list of impaired waters. The tributaries in the eastern and northeastern portion of the County are, in contrast, still relatively healthy. It is in this region that open space preservation can have the greatest impact on water quality since land preservation is a good tool for protecting healthy watersheds but inefficient for improving degraded watersheds.

According to the 2020 Comprehensive Plan, Gwinnett County has five existing or future public water supply watersheds. These include Big Haynes Creek and the Chattahoochee, Alcovy, Apalachee and Mulberry Rivers. Approximately 23,000 acres (roughly 8%) of Gwinnett County lies within the 100-year floodplain.

Although the vast majority of Gwinnett County residents rely on surface water sources for drinking water, an estimated 2,300 households in Gwinnett County received drinking water from groundwater sources (1990 U.S. Bureau of Census estimate). Approximately 55,000 acres, or 20% of Gwinnett County, are located within the potential groundwater recharge areas of underground aquifers (refer to the *Protected Areas* map). Significant groundwater recharge areas are located near Snellville,

Lawrenceville, Norcross and Lilburn. Protection of undeveloped areas within these groundwater recharge areas is important to protecting these water supply sources.

### *Scenic Views and Sites*

The 2020 Comprehensive Plan identified six scenic views and sites of natural features that should be considered for protection status. The sites are as follows:

- **Stone Mountain** viewed from Centerville Highway near and just south of its intersection with Johnson Drive
- **Lake Lanier** viewed from the east side of the dam (The lake and valley below make up this viewshed.)
- **Chattahoochee River** viewed from areas elevated above the river and along the river
- **Berkeley Lake** viewed from areas around the lake
- **Norris Lake** viewed from Hightower Road
- **Mountains and lakes** viewed from Mineral Springs Road near the intersection with Hog Mountain Road

Protection of these viewsheds is important to the overall aesthetic quality of the County.

### *Historic and Prehistoric Resources*

The 2020 Comprehensive Plan has identified 13 sites and buildings listed on the National Register of Historic Places. A fourteenth site, the Swanns-Freemans Mill site, has been nominated. This is a property that has been purchased by the County for protection and interpretation as part of the open space program. The 13 sites are:

- The Bona Allen House
- The Thomas Hudson House, also known as the Hudson-Nash House
- The Robert Craig House
- The Thomas Wynn House
- The Clarence R. Ware House
- The William Terrell Home Place
- The John Quincy Allen House
- Norcross Historic District
- Lawrenceville Female Seminary
- The Gwinnett County Historic Courthouse
- The Mechanicsville School
- The Elisha Wynn House
- Parks – Strickland Complex

In addition to the historic structures, cultural resource sites are also common in the County. In the Hog Mountain-Dacula area there are reported prehistoric mounds. Other sites can be found along the Chattahoochee, Little Mulberry and Yellow Rivers and along Beaver Run, Stone Mountain and Big Haynes and Suwanee Creeks. There are also scattered sites near the Norcross area. The remains of a bridge on the settlement route of the Hightower Trail is located on the Yellow River. Rogers Bridge, a historic steel bridge, remains intact over the Chattahoochee River. Numerous old cemeteries can be found throughout the County.

## **2B. Existing Protected Open Space and Open Space Planning Programs**

### *Summary of Open Space and Park Lands in Gwinnett County*

The availability of parkland and open space in the County currently is much higher than it was a few years ago. Gwinnett County has seen its parkland grow from just over 1,800 acres to over 7,200 acres. Currently, there are over 3,056 acres held by other public agencies and land trusts. This brings the combined total of the open space and parkland in the County to over 10,200 acres. This represents 3.6% of the total area of the County, or 18% of the goal of 55,403 acres of protected open space and parkland.

The levels of permanent protection vary among the open space and park properties at this time. As previously stated, approximately 3,056 acres of the land is currently permanently protected. Other portions of the parkland included in the overall acreage total do not meet all the permanent protection requirements of the Georgia Greenspace Program, but the land is now protected from private development.

The process of protecting open space and parkland in the County has long been a priority of the Board of Commissioners. In past years the County has focused on meeting active recreation needs in their parkland acquisitions. This has changed as the County has been able to meet these recreation demands. In 1998, Gwinnett County acquired two (2) significant large land tracts. Working with the Trust for Public Land, the County purchased 485 acres in northeast Gwinnett County, now known as Little Mulberry Park. A larger tract, 565 acres in southern Gwinnett County known as the Yellow River Park property, was also purchased. Yellow River Park is currently a very popular park with trails for hiking, mountain biking and equestrian use. Both of these land acquisitions for passive recreation interests were funded through the County's General Fund.

The County also targeted properties in highly developed areas of the County. Again with General Fund tax dollars, Gwinnett County purchased significant park properties including McDaniel Farm Park (134 acres) and Graves Road park site (70 acres). A joint parkland purchase with the National Park Service and the Department of Natural Resources helped to preserve 340 acres along the Chattahoochee River (Gwinnett County purchased 217 acres of the total site).

In November 2000, the citizens of Gwinnett County approved a Special Purpose Local Option Sales Tax (SPLOST) which identified \$55 million for passive parkland acquisition. A 404-acre expansion to Little Mulberry Park was the first property purchased with 2001 SPLOST funds. Other properties acquired in 2001 include: Deshong Road park site (208 acres); Five Forks Park (25 acres); Kanoheda area park site (25 acres); and Palm Creek park site (295 acres). Also during 2001, the County received approximately \$2.7 million from the Georgia Greenspace Program. These funds were utilized to acquire a historic mill site on the Alcovy River and a 350-acre passive park site east of the Norris Lake community in southern Gwinnett County. Finally, Gwinnett

County's largest land purchase to date with SPLOST funds will occur in early 2002. This will be the acquisition of nearly 1,800 acres in the Harbins area along the Alcovy River.

Gwinnett County's Greenspace Program also received a boost with the approval of the County's first conservation subdivision ordinance in 2001. Several development plans have been submitted for this designation. The county-wide Open Space and Greenway Master Plan will assist Gwinnett County in continuing its Greenspace Program. In addition, this planning tool will compliment the County's participation in the state of Georgia's Greenspace Program. Gwinnett County is working with the cities located within the County in this annual application process. The current protected open space and recent acquisitions are summarized below.

*Currently Protected Open Space*

Owner	Acreage
Federal	2544.33
State of Georgia	0
Gwinnett County	155
Municipalities	29.37
Conservation Organizations	327.78
<b>Total Acres Permanently Protected Greenspace</b>	<b>3056.48</b>

Properties that have been acquired as open space or passive park lands include the following:

Property	Size	Acquisition Cost
Mulberry Property	404 acres	\$6,644,000
Alcovy River Grist Mill	11.8 acres	\$350,000
Deshong Property	208.3 acres	\$9,400,000
McDaniel Farm Property	133.6 acres	\$9,886,000
Graves Property	70.2 acres	\$3,857,000
Kanoheda Property	25.4 acres	\$949,000
Five Forks Park	24.6 acres	\$1,678,000
Norris Lake Property	350 acres	\$4,095,000
Settles Bridge	217 acres	\$10,500,000
Palm Creek	295 acres	\$4,803,000
Harbins Property	1,795 acres	\$20,133,000 *
Tribble Mill Expansion	49.7 acres	\$423,000
Harris Property	10.84 acres	\$847,287
<b>Total</b>	<b>3,595.44 acres</b>	<b>\$73,565,287</b>

\*The purchase of 180.06 acres has been completed. The balance of this acquisition is pending and the total cost is subject to change.

### *Acquisition Cost Summary*

Many of these properties acquired by the County correspond with recommendations made by the public (see *Suggested and Acquired Properties* map). These acquisitions illustrate the high cost of purchasing open space in Gwinnett County, with an average cost per acre of \$20,460. This average should be a good cost to use in estimating acquisitions on a system-wide basis. The average includes properties from all areas of the County and consists of both properties with high development potential and properties with lower development potential due to large sections of floodplains or steep hillsides. If the County were to acquire an additional 5,000 acres of developable property using an average cost of \$20,460 per acre, it would cost over \$100,000,000. It is clear that at this high cost, the County will have to seek other means of acquiring and protecting open space in addition to its fee simple purchase of lands for protection and preservation.

### *Ongoing Open Space and Greenway Planning Efforts in the County*

#### **Gwinnett County Department of Transportation**

The Department of Transportation has developed alternative transportation plans as part of the recently completed Comprehensive Transportation Master Plan. The department has led the County's efforts to plan pedestrian and bicycle facilities and to work on grant applications funded through the Georgia Department of Transportation. The transportation planning staff should be included in interdepartmental planning efforts on all future greenway and bicycle projects, as many of the projects can be developed in association with roadway projects.

A partial listing of greenway and bicycle projects in the current Comprehensive Transportation Master Plan is provided below. These projects are taken from the Atlanta Regional Commission's approved FY2002-2004 Transportation Improvement Program (TIP). This TIP is in the process of being updated and the listed projects are subject to revision as a result of the update, currently scheduled for approval in fall, 2002.

#### Greenway and Bicycle projects (partial list)

<b><i>Number</i></b>	<b><i>Road</i></b>	<b><i>From</i></b>	<b><i>To</i></b>	<b><i>Miles</i></b>
<b>GW-AR 177H</b>	Peachtree Industrial Blvd. Western Gwinnett Sidewalk/Bikeway <b><i>FY 2002 – 2004</i></b>			0.00
<b>GW-AR BP002</b>	Sugarloaf Parkway <i>Not currently funded</i>	SR 20	Old Peachtree Road	12.00
<b>GW-AR BP002A</b>	Sugarloaf Parkway <i>Not currently funded</i>	Old Peach	Buford Hwy	1.00
<b>GW-AR BP002B</b>	Sugarloaf Parkway <i>Not currently funded</i>	Buford Highway	Peachtree Industrial Blvd	1.00

Greenway and Bicycle projects (partial list continued)

<b>Number</b>	<b>Road</b>	<b>From</b>	<b>To</b>	<b>Miles</b>
<b>GW-AR BP011</b>	WP Jones Memorial Trail; Pleasant Hill Road <i>FY 2002 – 2004</i>	Bridge at River	Buford Hwy (Regency Pk Dr)	2.20
<b>GW-AR BP014</b>	Suwanee Creek Greenway Trail Ext. <i>FY 2002 – 2004</i>	Martin Farm Park	McGinnis Ferry Road	0.80
<b>GW-AR BP016</b>	Peachtree Industrial Blvd. <i>FY 2002 – 2004</i>	Riverwood Pkwy	Rogers Bridge Road/Duluth	0.50
<b>GW-AR BP081</b>	Suwanee Creek Greenway IV <i>Not currently funded</i>	McGinnis Ferry Rd	US 23/Buford Hwy	1.50
<b>GW-AR BP092</b>	Suwanee Creek Trail Ext. & Landscaping Ext. TEA <i>FY 2002 – 2004</i>	McGinnis Ferry Rd	US 23/Buford Hwy	1.40
<b>GW-AR BP093</b>	Rogers Bridge Multi-use Trail TEA <i>FY 2002 – 2004</i>	Rogers Bridge Rd	Peachtree Ind. Blvd.	0.50
<b>GW-AR BP077</b>	Ivy Creek Tributary <i>Not currently funded</i>	Suwanee Creek	Camp Branch Road	3.50
<b>GW-AR BP079</b>	No Business Creek Greenway <i>Not currently funded</i>	Springdale Rd	Norris Creek	5.50
<b>GW-AR BP080</b>	Suwanee Creek Greenway <i>Not currently funded</i>	Bryant Rd	Suwanee Elem	8.80
<b>AR-GW BP35B</b>	State Bicycle Route #35 "March to the Sea" <i>Not currently funded</i>	Five Forks Trickum Rd to Dogwood Dr, to SR 124	To Lenora Church, to Centerville-Rosebud to Walton Co.	18.00
<b>AR-GW BP55B</b>	State Bicycle Route #55 "Appalachian Gateway" <i>Not currently funded</i>	Old Peachtree Road from Collins Hill to to Hamilton Mill	To Ridge Road, to Hall County Line	12.00
<b>AR-GW BP60B</b>	State Bicycle Route #60 "Athens Link" <i>Not currently funded</i>	Chandler Road at Grayson New Hope Road	To Ozora Road to Walton County Line	5.00
<b>AR-GW BP70B</b>	State Bicycle Route #70 "Northern Crescent" <i>Not currently funded</i>	McGinnis Ferry Road from Co. Line to Pib, to GA, 317, to Horizon, to Collins Hill	Jackson/New Hope Road, to Chandler to Grayson-New Hope, to Main St to Grayson Pkwy	25.00

### **Gwinnett County Department of Planning and Development**

The Gwinnett County Department of Planning and Development has played an active role in the preservation of open space in the County. As early as 1995, the staff developed a draft greenway master plan that considered the potential for a variety of multi-use pathways and bike paths throughout the County. More recently, the planning staff cooperated closely with the Tree Advisory Committee in drafting the County's conservation subdivision ordinance, approved by the County Commission in 2001. The department is currently leading the program to develop an urban-center type development node as part of a Livable Centers Initiative. Focusing growth in such centers will facilitate protection of larger areas of greenspace elsewhere in the County. The Planning and Development Department will continue to play a major role in greenspace protection in the future by managing the patterns of growth and by working with developers who are building adjacent to open space properties and greenway routes.

### **Gwinnett County Department of Public Utilities**

Gwinnett County Department of Public Utilities is involved in land acquisition for utility easements, in the permitting of the County's water and sewer supply, and in assisting in the implementation of the County's storm water ordinance. There are many opportunities for the Department of Public Utilities to purchase property that meets its needs, doesn't hinder the provision of water and sewer services and also provides opportunities for public open space or greenway connectors. Supplemental funding to provide for recreational use of this land will need to be provided. At this time, the Department is active in the open space discussions but has not established procedures that require joint projects.

### **Gwinnett County Municipalities**

Currently, the municipalities' across the County are working to advance their own greenspace programs. Most of the municipalities are actively working with the County on the Georgia Greenspace Program as participating members of the grant. The funds received from the grant program, along with 10 million in SPLOST dollars, will provide the municipalities with funds to pursue open space acquisition and greenway projects.

The cities and county planning staffs meet on a regular basis to discuss planning, transportation and greenway activities that are not limited by municipal or unincorporated county boundaries. At these meetings, they also discuss grant programs they can pursue collectively or as individual jurisdictions. Two joint planning sessions were held as part of this master planning process.

### **Land Trusts and Conservation Organizations**

While several land trusts hold lands or easements in the County, the two most active are the Trust for Public Land and the Gwinnett Open Land Trust. The Trust for Public Land is a national conservation organization that seeks to enable property across the country to be protected from development or degradation. The Trust for Public Land

prefers to hold the land in a temporary status and then transfer the land for permanent protection to governmental agencies or other non-profit conservation groups. In Gwinnett County, the Trust for Public Lands has been focusing on securing land to be transferred into the Chattahoochee River National Recreation Area. It currently holds over 300 acres of land in Gwinnett County.

The Gwinnett Open Land Trust is a local land trust that is concerned with the protection of open space in Gwinnett County. Members of the Gwinnett Open Land Trust were active participants in the Tree Advisory Committee that developed the County's conservation subdivision ordinance. The organization has expressed an interest in holding conservation easements on open space in these conservation subdivisions, as well as on other tracts of land. The Gwinnett Open Land Trust currently holds over 225 acres of land in Gwinnett County. The Chattowah Land Trust operates in North Georgia, Northeast Alabama and Southern Tennessee. It holds land and easements in 15 Georgia counties. In Gwinnett County, Chattowah currently owns riparian land along the Chattahoochee River.

## 2C. Targeting Preservation Efforts

This section considers where Gwinnett County should focus its greenspace preservation efforts—both the location and the type of land to be preserved. These preservation targets are based on the primary goals of the Open Space and Greenway Protection Plan as well as on the demographic and natural environment information discussed in Section 1A. Of course, it is also essential to consider the cost and the availability of land. Included in Section 2D are results from a cost analysis. Results of a land availability analysis are reported in Section 5. Both studies were performed by Lose & Associates as part of the master planning process.

### *Targets for Preservation*

1. Streams and Floodplains (to protect water quality). The County should consider developing a buffer/floodplain acquisition program.
2. High-Quality Watersheds (to protect water quality and to provide increased recreation opportunities). The County should consider targeting significant open space acquisition efforts toward the Apalachee, Little Mulberry, Alcovy and Big Haynes watersheds in order to protect high quality watersheds and drinking water sources. Large tracts are available in portions of most of these watersheds, providing opportunities for large passive parks.
3. Park Land in Urbanized Areas (to provide increased recreation opportunities). To the extent these are reasonably available, the County should consider identifying and purchasing properties in the highly developed western and central portions of the County in order to provide recreation opportunities. Acquisition or protection by accepted conservation methods in urbanized areas can include development sites that are under-utilized at the present time.
4. Restoration of Stream Banks in Urbanized Areas (to improve water quality and provide recreation opportunities). The County should consider coordinating greenspace preservation and restoration projects throughout the County, especially in the more urban areas. For example, Crooked Creek, Beaver Ruin Creek and Jackson Creek are currently being studied as part of the County's program to improve stormwater management. As degraded stream banks are restored, they can be permanently protected and added to the County's greenspace system. In some cases, restored riparian zones may be converted to public access greenways.
5. Prime Wildlife Habitat (to reduce the environmental impacts of development). Habitat documented to contain state and federal threatened or endangered species, such as those noted in Section 2A, should be considered a priority. Also, buildings and landscapes on the Historical Register and mapped cultural resource sites should be considered for acquisition.

6. Greenways. The County should consider establishing greenways in locations where they provide the greatest connectivity between existing greenspaces and where they can serve as useful transportation corridors.
7. Distribution of Greenspace. The County should consider acquiring land in both developed and undeveloped areas of the County. Land preserved in less developed areas provides more acreage per dollar, while land preserved in more developed areas provides greenspace that is readily accessible to local residents. As shown in the land acquisition cost analysis reported in Section 2D, both approaches can be considered cost effective.

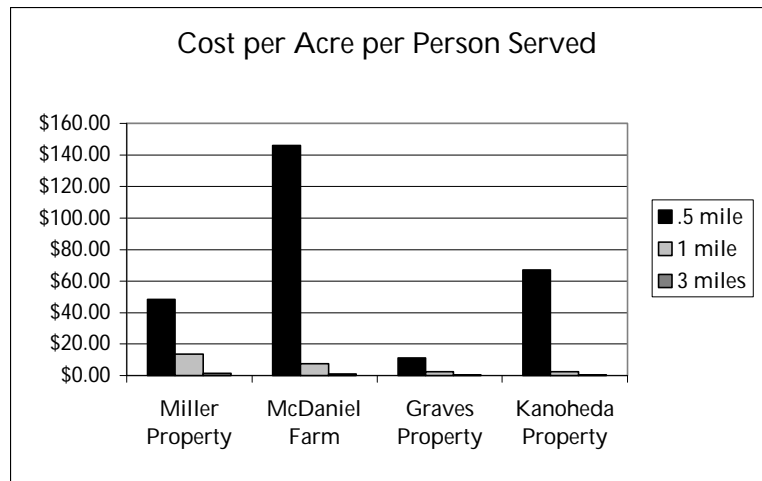
#### *Applying the Targets for Preservation*

Section 3A provides policy recommendations related to land acquisition and preservation. Whereas this section discusses *what* lands to preserve, Section 3A discusses *how* those lands can be preserved. Regardless of the method used, however, there are times when it is necessary to evaluate an individual property to determine its value as a target for preservation. A proposed property evaluation system is provided as an appendix. Both ranking criteria and a ranking form are included. This evaluation system is not intended to be the sole determinant of whether a property should be purchased or otherwise protected, but is merely a guide to ensure that various factors are considered in the decision.

Existing park locations and areas suggested for acquisition at public meetings are shown on the following two maps.

## 2D. Land Acquisition Cost Analysis

Where does Gwinnett County get the most benefit for its greenspace protection dollar? Is it more economically efficient for Gwinnett County to preserve greenspace in high-cost areas, close to many residents, or in low-cost areas with lower local population density? An analysis of recent land acquisition based on cost-per-person-served-by-acre, reveals several interesting findings. The property acquisitions analyzed include the 404-acre Miller tract, 128-acre McDaniel Farm tract, 70-acre Graves tract and the 25-acre Kanoheda tract. All but the Miller tract are located in the highly-developed and rapidly-growing south-central or southwestern section of the County. This is an area where property is becoming difficult to find. However, in this section of the County the population that would be served within a 3 mile radius is much higher than in other sections.



Outlined below are the population and cost per resident served within 0.5-mile radius, an easy walk to a park; a 1-mile radius, a distance many people will walk and a very easy bike ride; and a 3-mile radius, a moderate bike ride or short drive by car.

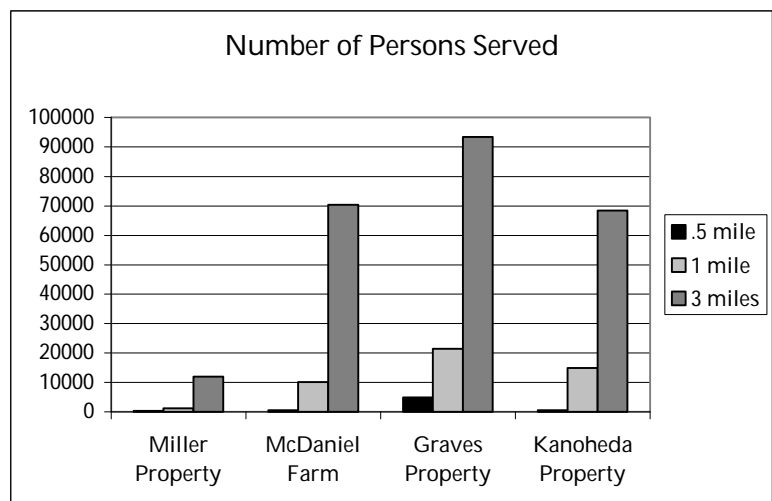
<b>Miller Property</b>	<b>404 acres</b>	<b>\$6.444 million purchase price</b>	<b>\$15,950/Ac.</b>
Distance	Residents Served	Cost Per Resident Served/ Per Acre	
.5 mile	339	\$47.05	
1 mile	1,207	\$13.21	
3 miles	12,061	\$1.32	
<b>McDaniel Farm</b>	<b>128 acres</b>	<b>\$9.886 million purchase price</b>	<b>\$77,234/Ac.</b>
Distance	Residents Served	Cost Per Resident Served/ Per Acre	
.5 mile	518	\$149.10	
1 mile	10,139	\$7.61	
3 miles	70,323	\$1.10	
<b>Graves Property</b>	<b>70 acres</b>	<b>\$3.859 million purchase price</b>	<b>\$55,129/Ac.</b>
Distance	Residents Served	Cost Per Resident Served/ Per Acre	
.5 mile	4,889	\$11.28	
1 mile	21,477	\$2.57	
3 miles	93,477	\$0.59	

<b>Kanoheda Property 25 acres</b>		<b>\$949,000 purchase price</b>	<b>\$37,960/Ac.</b>
Distance	Residents Served	Cost Per Resident Served/ Per Acre	
.5 mile	566	\$67.07	
1 mile	14,926	\$2.54	
3 miles	68,390	\$.55	

The average cost per acre: \$33,713.00  
The average cost per acre/per resident served: \$0.86 @ 3-miles  
The average cost per acre/per resident served: \$33.49 @ 0.5-miles

For these properties, the cost per person served (in the 3-mile radius) ranges from a low of \$0.54 per acre to \$1.32 per acre. This is a cost difference of 240% between the lowest—in the Kanoheda area—and the highest—for the Miller property. In looking at the recent census data for these two areas, the majority of the Kanoheda area grew at a rate of 79% and the Miller property area grew at rates ranging from 87% to 160%, for an average of approximately 133% within the 3-mile service boundary (the service area crosses census tract boundaries, making such estimations somewhat difficult). It is unlikely that the present growth pattern within the Kanoheda area will remain as high as it currently is, since it is reaching a point of build-out.

The growth rate in the area around the Miller property should continue or possibly increase. If residential development within the Kanoheda area were to grow at a modest rate of 50% for ten years, the population in the Kanoheda 3-mile service area will reach 102,585. If the population growth within the Miller 3-mile service area increases to 150%, the population within the service area will increase to approximately 30,152. This would result in a cost per acre per resident of \$0.36 and \$0.52 respectively. If these growth projections are correct, it will take between 15 to 20 years for the cost per acre per person to balance out. If the growth in the Kanoheda area changes from the current pattern, and higher density projects are developed along GA 316, it could be over 20 years before the cost per acre per resident begins to balance out.



Obviously, this is not a comprehensive cost analysis of new parkland. However, it does provide some insight into the value of parkland and open space purchases in different regions of the County. In areas where the County is more fully developed, more residents are served at a lower cost per acre, even though the land values are higher.

Depending on the site selected and the size of the parcel purchased, there is a high probability that the cost per acre within the 0.5-mile radius will be closer to that of large tracts purchased in undeveloped areas.

As fewer undeveloped tracts remain in the southwestern and south central sections of the County, efforts should be made to identify and purchase properties in these highly developed areas. If properties in these areas are not purchased in the near future, there is a good chance that large undeveloped properties will no longer be available, and options for providing open space to residents will be limited to small properties, redevelopment projects and stream restoration projects.

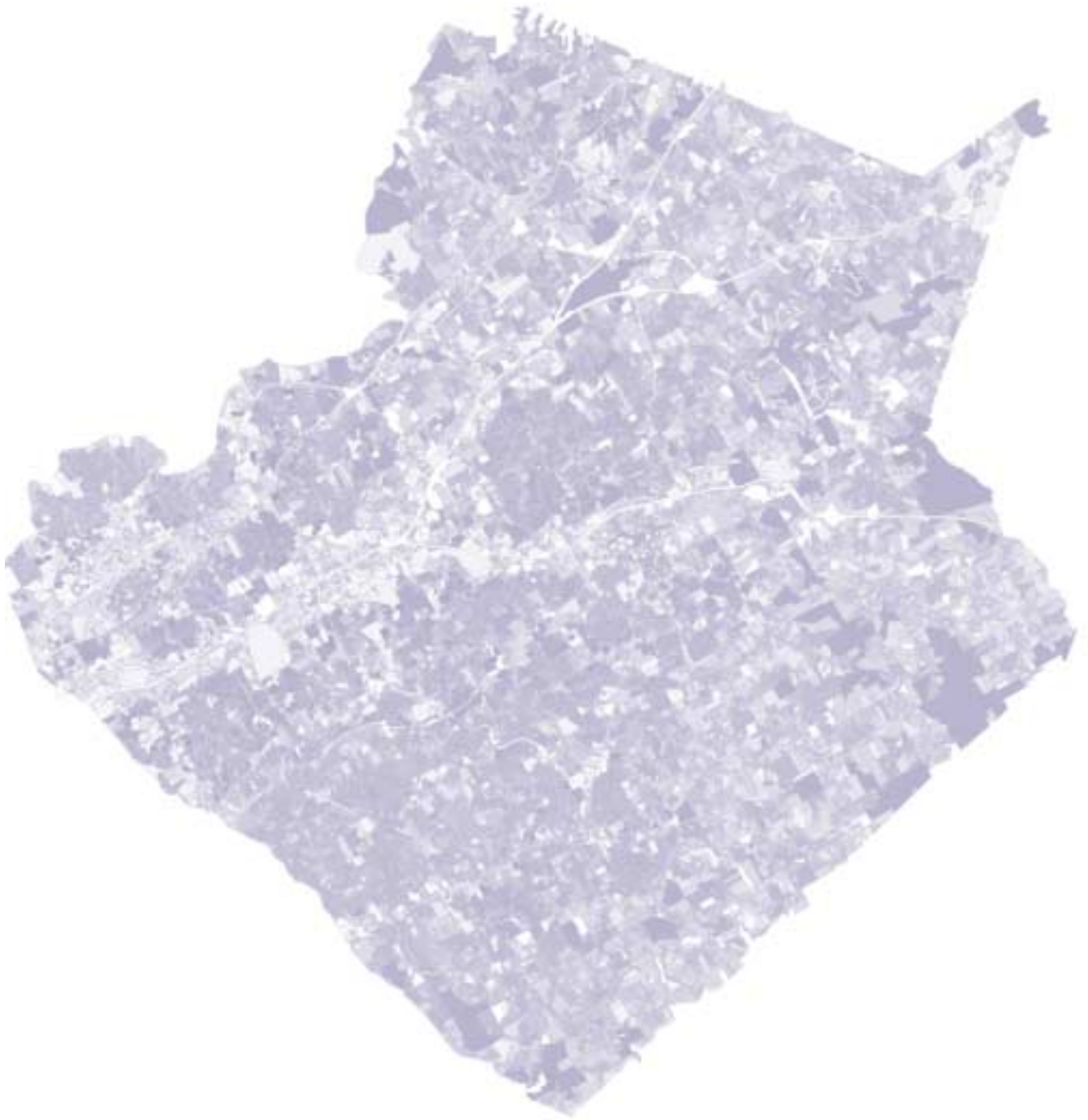
Although they serve fewer local residents, the large tracts of land in the eastern section of the County cost less per acre and provide more overall acres of open space to the County system. Preserving large areas of greenspace now—rather than filling in greenspace once the area develops—can help encourage more efficient development patterns where growth is clustered in nodes rather than spread at a uniform density of three lots per acre. Clustered development reduces traffic and encourages the use of alternative transportation options, ensuring that these areas of greenspace remain readily accessible. It is important to protect some greenspace immediately adjacent to areas targeted for development, to provide greenspace that is accessible to pedestrians. By providing greenspace that is accessible by varied transportation routes, the demand on the roadway system is reduced, providing additional environmental benefits.

To maximize the return on the acquisition of open space, several development factors should be evaluated in addition to environmental factors:

- Current and projected population densities
- Relationship to existing and proposed transportation facilities
- Current and proposed land use
- Potential for modifications to land use
- Accessibility to varied transportation choices including greenway trail routes
- Major developments or civic facilities that will concentrate support facilities
- Potential for various forms of mass transit and the locations of mass transit hubs

By including these factors in the selection process, critical lands can be purchased today for preservation that will be easily accessible to residents in the future.

# Section 3



### *Section 3.*

## **Open Space Acquisition, Administration, Management and Funding Analysis, and Policy Recommendations**

### **3A. Acquisition Issues & Policies**

#### **Tools for Acquiring and Protecting Greenways and Open Space**

There are many ways to protect open space. The most common—but also most expensive as a rule—method of protecting land is to purchase it outright (i.e., to buy it in “fee simple”). This tool is well known in Gwinnett County. Since the passage of the 2001 Special Purpose Local Option Sales Tax, the County has led the Atlanta metropolitan region in acquiring and protecting new parkland. It is expected that fee simple acquisition will remain a key element of the Open Space and Greenway Plan, and was, in fact, identified as the preferred land preservation method by the Citizens’ Steering Committee. Gwinnett County has recognized from the beginning that it cannot meet all of its open space protection goals through acquisition alone.

The County’s 2000 Georgia Community Greenspace application specified the use of several other tools, including conservation subdivisions and stream corridor protection, in meeting a total goal of protecting 20% of the County land area. The purpose of this chapter is to evaluate the tools currently used in Gwinnett County and to present some additional options. The presentation has been restricted to those methods judged to have the best chances of success, based on current conditions and information provided by County staff and citizens. Some tools, such as transferable development rights, are not currently viable but are presented because they have good potential for use in the future.

#### *Acquisition*

Acquisition is not limited to purchase of land in fee simple, but also includes purchase of development rights and acceptance of donations of land and development rights. This discussion includes acquisition by conservation organizations, such as land trusts, as well as by the County. This method of land preservation was identified as one of the top three methods of land preservation by the Citizens’ Steering Committee.

#### *Fee Simple Acquisition*

Fee simple acquisition results in the direct ownership of real property; it is the most complete form of land ownership. Fee simple purchase will provide the County title to the property. Within reasonable limits, the County can use the property in any manner consistent with its goals for permanent open space protection including providing for public access.

Fee simple acquisition can be very expensive. Nevertheless, it is probably the best choice for properties to be used for parks, trails, or other uses where public access is necessary. For many types of land, such as riparian corridors protected mainly for water quality purposes, public access is unnecessary or even undesirable. In these cases, it may make sense to acquire only limited development rights or to use other forms of land protection that do not require the expense of outright purchase in fee simple.

### *Acquisition of Development Rights or Less-Than-Fee Interests*

#### *Conservation Easements*

Landowners can voluntarily agree to give up one or more of their development rights in order to protect natural or cultural resources. The landowner sells or donates the development rights to a second party, either a government body or a charitable organization called a land trust, which “holds” the development rights and ensures that they are not used. This is documented in the form of a conservation easement which is recorded with the chain of title for the deed to the property. If the parties agree that the restrictions are to be permanent (rather than for a specified term of years), all future owners of the property are subsequently bound by the restrictions of the easement. The easement holder monitors the property to ensure that the agreement is not violated and pursues legal recourse if necessary to compel compliance.

The federal and state governments provide some tax relief to landowners who donate permanent conservation easements that promote the conservation values of outdoor recreation and education, habitat protection, open space that provides a scenic view or promotes a clearly delineated governmental policy, and historic resource protection. The landowner may deduct the value of the easement from federal and state income taxes (up to 30% of the landowner’s adjusted gross income over a period of six years until the value of the easement is exhausted). Estate tax liability should decrease as well because the estate tax is levied on the encumbered value of the estate. Furthermore, property taxes may decrease because restricting various development rights may diminish the fair market value of the land.

Georgia’s Uniform Conservation Easement Act, O.C.G.A. Sections 44-10-1 et al., authorizes and promotes the use of conservation easements to “retain or protect natural, scenic, or open space values; assure availability for agricultural, forest, recreational or open space use; protect natural resources; maintain or enhance air or water quality; and preserve the historic, architectural, archeological or cultural aspects of real property.” Thousands of acres of land in the state are permanently protected via conservation easements. These include longleaf pine plantations in southwest Georgia, a meadow of wildflowers in Gilmer County, sensitive floodplains and wetlands adjacent to major rivers and their tributaries throughout the state, the façade of a historic factory now housing loft apartments in Marietta, and large open spaces in conservation subdivisions in metropolitan Atlanta. There are at least five easements in

place in Gwinnett County, providing permanent protection of over 200 acres of riparian buffers and other sensitive land. These easements are held by the Gwinnett Open Land Trust, the Southeast Land Preservation Trust and the US Army Corps of Engineers. In all of these cases, the landowner continues to hold title to and enjoy his property while forgoing only those development activities (such as subdivision of the land) that would adversely affect the conservation values set forth in the easement. The Chattowah Open Land Trust and the Gwinnett Open Land Trust protect an additional 200 acres of land through fee ownership.

#### *Cooperation with Land Trusts and Other Organizations*

Gwinnett County landowners have proved by example that they are willing to donate certain development rights in order to permanently protect greenspace. It is likely that more easements would be donated if more landowners understood this tool. The County can play a critical role in promoting the use of conservation easements in several ways. It can actually recruit and hold conservation easements; it can partner with private land trusts such as the Gwinnett Open Land Trust and the Chattowah Open Land Trust to educate landowners about easements and to target lands identified in this master plan for the recruitment of easements; and it can continue to provide ad valorem taxation relief to easement donors.

It is recommended that, where appropriate, Gwinnett County should work in concert with private land trusts. Also, the County should develop internal educational opportunities to educate staff so they can answer basic questions about conservation easements and, where appropriate, suggest an easement as an option to a developer or other landowners. They could also encourage land trusts to recruit easements in the areas identified as priorities in this master plan. The County should also be prepared to hold some easements on its own.

There are advantages to having both private land trusts and the government acting as a land trust in a single community. Some landowners are more comfortable donating land to a private nonprofit organization than to a government body. Furthermore, there are occasions when land trusts can move more quickly in negotiating and accepting easements than can public agencies. At the same time, it might be optimal for the County to hold some easements itself in order to have more control. These might include easements on land that must be protected in order to assure that source water standards, total maximum daily loads and other water quality mandates are met. These easements could be held by the Department of Community Services or by the Department of Public Utilities, depending on whether public access will be allowed. There is precedent for local governments holding conservation easements in Georgia; the City of Alpharetta holds an easement on wetlands and Newton County is in the process of establishing a quasi-governmental land trust. This is an option for Gwinnett County, as is working out arrangements for the Recreation Authority to hold some easements.

### *Purchase of Development Rights (PDRs)*

Though both federal and state law provide income, estate and property tax benefits to landowners who donate conservation easements on their property, these benefits may not fully compensate the landowner for the development potential they lose by foregoing certain uses of their land. This makes the donation of conservation easements unattractive to many landowners. In response, over 200 local and state governments have developed Purchase of Development Rights, or PDR, programs. The landowner retains ownership of the property and usually continues traditional uses of the land, such as farming or forestry. In consideration of the sale of development rights, the landowner places a conservation easement on the property, which restricts specified development of the property in perpetuity. The acquisition and maintenance costs associated with a PDR program can be significantly lower than that of a fee simple acquisition program, although the County's control of the property is not as complete. A purchase of development rights generally does not include a provision for public access, although this may be negotiated.

Governments rely on a variety of funding sources to purchase these development rights ranging from bond referendums to sin taxes to special purpose local option sales taxes to real estate transfer taxes. In addition to local legislation and community funding, these programs also require state legislation that supports the program. Howard County Maryland, Sonoma County, California, Town of Dunn, Wisconsin and Lancaster Pennsylvania are a few of the communities that have initiated programs to purchase development rights to protect open space. For that reason, we have included a series of case studies on successful PDR programs in Appendices B and D. The potential for purchasing development rights, particularly along stream corridors and agricultural lands adjacent to existing park and open space properties, is high in Gwinnett. However, the steps discussed in the case studies must be completed in order for the program to become a reality.

### *Multi-Purpose Easements*

It is recommended that Gwinnett County incorporate the right of public access into new sewer easements or coordinate the acquisition of sewer and access easements, creating a network of greenways that link new subdivisions and homes with other greenspaces and public facilities such as schools, libraries and job centers. To that end, the Gwinnett Parks and Recreation Department would work with the Department of Public Utilities, as well as the municipalities, to acquire public access easements on new sewer lines and would recruit public access easements along existing sewer lines in areas of desired linkages specifically identified in the greenspace plan. The needs associated with water and wastewater services must be met, and supplemental funding provided. Georgia Greenspace Trust Fund monies could be used to acquire these public access easements so long as they were permanent and the corridor was managed in a relatively natural state. In addition to joint access easements, access easement within existing utility easements is another tool for connecting open space properties.

Local governments that have been successful in linking sewer corridor acquisition to greenway facility development include the City of Vancouver, British Columbia and Raleigh, North Carolina. Over half of Raleigh's 40-mile greenway system, consisting of twenty different trail segments along tributaries to the Neuse River, is located on sewer easements. Over 200 property owners have sold greenway access rights to the city.

In 1989, the City of Raleigh enacted an ordinance requiring any new development occurring along the city's proposed greenway trail to provide greenway right-of-way and requiring dedication of greenway access in the floodplain. The ordinance also provides that the city may use impact fees to acquire development rights for its greenway trail. The Raleigh Ordinance, and model greenway access easements, are attached in Appendices B and D.

One of the issues that may be raised by the owners of the land burdened by a public access easement is that of liability for the injury of pedestrians using the footpath. Because they are providing recreational access without charge, Georgia's Recreational Property Act (O.C.G.A. 51-3-20) shields the landowner who donates a public access easement from liability except in the event of gross negligence. It appears that the act also shields the landowner who receives a one-time payment for a public access easement and thereafter allows the public on the land without charge. The Uniform Conservation Easement Act, O.C.G.A. 44-10-3 (e), appears to protect the local government or utility which holds the easement from liability as well. Note that the local government may assume liability from the landowner, as the City of Raleigh has done in its access easement. The relevant provisions of these laws are attached in Appendices B and D.

### *Restrictive Covenants*

Under Georgia law, O.C.G.A. Section 44-4-60, a restrictive covenant can protect greenspace from development in perpetuity if it is written in favor of, or for the benefit of, any federal, state or local unit of government or any corporation, trust or other organization *holding land for use of the public*. There has been no case law in Georgia interpreting the phrase "holding land for use of the public" so this concept remains somewhat ambiguous. Clearly, a restrictive covenant that prohibits development and specifies that the general public may access the space for hiking and biking purposes would qualify. It is less clear whether a covenant that prohibits development in order to protect water quality or wildlife habitat—and does not specifically provide for public access—would be considered "for use of the public." Any covenant that does not satisfy this requirement may be terminated by a majority vote of the affected landowners after twenty years in counties or cities that have adopted zoning laws. Thus, Gwinnett County should rely on restrictive covenants to provide permanent protection of open space only under those conditions where it is sure that the covenant will meet the "holding land for the use of the public" test.

### *Donated Property*

Occasionally, property owners will wish to donate land or interest in land (development rights) to the County to be preserved as public open space. While this may not be an everyday occurrence, the County should be well prepared to accept offers of such land as appropriate. Establishing procedures to streamline the donation process will benefit the County by reducing staff time to handle these cases. The tax benefits received by donors should encourage future donations of land.

The Metropolitan Board of Parks and Recreation in Nashville has found that donations are an important component of its greenspace protection program. Most of the city's greenways cross land protected with "Conservation Greenway Easements" that were donated to the city by the property owners. A sample easement is included as an appendix.

### *Authorization to Accept*

Nationwide, some cities, states and counties authorize particular agencies or departments to accept donations in advance by statute, while others require that the local governing body authorize individual donations. In Gwinnett, acceptance should probably be conditioned on evaluation of value to this Open Space and Greenway Master Plan. Some properties will be highly desirable; others would only be a burden to the County and provide little public benefit. The County should appoint a department, individual or committee to review each offer and recommend acceptance to the County Commission, who would decide to accept or decline on a case-by-case basis. Note that under O.C.G.A §36-64-6, any gift that will subject the County to additional expense for improvements, maintenance or renewal must be subject to the approval of the governing body. The County Commission should consider enacting an ordinance authorizing and specifying these procedures.

### *Coordination*

It is important to appoint an individual who has the responsibility for handling offers of donated land. This responsibility needs to be assigned based on guidelines established by the County. If the responsibilities are split among staff, then one should be designated to handle this responsibility, and it should be clear to other County employees that this is the person to whom inquiries regarding donations be directed. Coordination among departments will be required in the preparation of legal documents related to the donation.

### *General Guidelines*

It is possible for the County to accept properties in fee simple or to accept and hold a conservation easement on a property. Because the tax benefits associated with conservation donations are a critical incentive to landowners, the property should be protected for conservation purposes in perpetuity by a conservation easement, a restrictive covenant or equivalent mechanism. This will allow a donor to receive all

possible tax benefits on fee simple property donations. See Appendix C for information about tax benefits.

### *Evaluation of Property*

A thorough evaluation of potential properties helps the County avoid acquiring undesirable land. In addition, the donor is much more likely to obtain a federal income tax deduction if the property has been evaluated using a well-defined set of criteria, particularly in the case of donated conservation easements. The evaluation scheme can be the same one used to evaluate properties for purchase or other forms of preservation, as long as it includes the requisite factors to establish the conservation value of the property as recommended below.

### *Steps to Take to Facilitate the Donation of Properties*

1. Establish a procedure and develop fixed criteria for evaluating proffered properties or development rights (conservation easements). Establish by ordinance that these criteria will be applied to all potential greenspace properties, whether donated or accepted. In order for the donor to deduct the gift of an easement for federal income tax purposes, it is critical that the property be evaluated under a “clearly delineated governmental policy” as well as the separate “significant public benefit” requirement under IRC §1.170A-14(d)(4).
2. Adopt a resolution or ordinance stating that donations are to be used for a valid and exclusively public purpose, explaining the conservation purpose, committing to protect the property or interest in perpetuity and stating that it is the intent of the County that such donations be tax deductible to the extent provided by law. This may be done once for all donations or as each donation is accepted, in the form of a resolution of acceptance.
3. Prepare model language for conveyances. The conveyance must provide that the donor prohibit the County from subsequently transferring the property interest, unless transferred to a qualified conservation organization and restricted to the original conservation purpose.
- 3a. Prepare a model conservation easement. This will ensure that the County's interests are fully protected and will minimize legal costs of the donor.
4. Designate a County representative to provide acknowledgement of the gift and to sign IRS forms documenting the gift.
5. Prepare a form or certification that the designee can use to acknowledge the gift, including a description of the property, the date and location of the donation, whether the County provided any consideration for the donation (goods or services), and a description and good faith estimate of the value of any such consideration.
6. Prepare guidelines for accepting easements or restrictions on property subject to a mortgage. In order to qualify for a tax deduction, the mortgagee must agree to subordinate its interests to the right of the County to enforce the restriction.

### *Steps to Take When Approached With a Potential Donation*

1. Refer the donor to the designated coordinator, who is responsible for the succeeding steps.
2. Request proof that the property has no known encumbrances, liens, or conditions to transfer.
3. Request a current map of the property and current appraisal of the value of the property. Refer the donor to IRS Publication 561 regarding appraisals, which must be made no earlier than 60 days before the donation.
4. Request proof of title, i.e. title certificate.
5. A Phase 1 environmental study will be required on all property transactions.
6. Evaluate the property and documentation using criteria established in advance by ordinance.
7. Recommend acceptance or denial to the County Commission, who will then vote on the matter.
8. If the property is accepted, provide guidance for preparation of the conveyance, incorporating language ensuring perpetual protection. The deed must substantiate the donative intent of the donor and the conservation purpose of the County, and must prohibit transfer of the property except to another qualified conservation organization.
9. If the contribution is of an easement or similar restriction on property subject to a mortgage, obtain an agreement with the mortgagee subordinating the mortgagee's interest to the right of the County to enforce the conservation purposes of the gift in perpetuity.
10. Record the transfer or restriction in the County land records. Note: in the case of an easement or restriction where the underlying property is subject to a mortgage, the subordination of rights agreement with the mortgagee must be recorded as well, and should be recorded immediately prior to recording the conveyance of easement.
11. After conveyance, provide documentation to the donor. A letter or certification should incorporate a description of the property, a statement indicating whether the County provided any consideration for the donation (goods or services), and a description and good faith estimate of the value of any such consideration. This must be furnished to the donor before he files his tax return for the year in which the property interest is conveyed.
12. Where the County has provided consideration, provide the donor with a statement explaining that only the amount by which the donor's gift exceeds the fair market value of the benefits is deductible.
13. Enter the donation in a register or roll of donations such that a designated County representative may sign IRS Form 8283, required for the deduction.
14. In the case of an easement, take steps to revalue the property for property tax purposes pursuant to O.C.G.A §44-10-8.

### *Mitigation Banking*

Gwinnett County is in the process of developing watershed master plans to fulfill federal and state regulatory requirements for surface water quality. The plans are intended to achieve a reduction of non-point source pollution through the management of stormwater runoff. Master planning for Crooked Creek, Beaver Ruin Creek and Jackson Creek is underway, and all other watersheds will be studied over the course of a five-year period. Planning involves two surveys: the first to identify sites that are in need of stream bank restoration, and the second to identify sites with inadequate stormwater best management practices.

Stream bank mitigation banking and wetland mitigation banking allows the County to meet the objectives of both open space and stormwater programs simultaneously and at a lower cost. A mitigation bank consists of wetlands, stream banks, and upland or riparian buffers that have been permanently protected through a conservation easement or a restrictive covenant. Credits are created from the restoration, enhancement and preservation of these resources. In addition to wetland banks developed by the County, wetland banks developed by private land trust can also benefit the County's overall greenspace goals.

The owner of the bank can then sell the credits to residential and commercial developers, the Department of Transportation and other public and private entities who are required to mitigate the impacts of their development on wetlands and streams pursuant to Section 404 and Section 401 of the Clean Water Act. The County can also use the credits to mitigate the impacts of its own road-building and land clearing operations. By creating a mitigation bank and selling credits, Gwinnett County can recoup the cost of permanently protecting wetlands and streams; it can even use these recovered funds to purchase additional open space.

What type of demand for mitigation credits might Gwinnett County expect? The federal Clean Water Act requires that projects that impact as little as 100' of stream or one-tenth of an acre of wetland be mitigated<sup>1</sup>. The Corps of Engineers authorizes mitigation banking in cases where no feasible opportunities for mitigating at the development site are available, where off-site mitigation is demonstrated to be more environmentally beneficial than on-site mitigation, where impacts of development will be minor, or where projects are linear in nature.

### *Greenway Acquisition*

For the greenway trail development, public access will be required. Since mandating public access to private property raises significant legal problems (including the possibility of "takings" claims), how can Gwinnett County ensure that properties that

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<sup>1</sup> Projects that impact less than 100 linear feet of stream or one-tenth of an acre of wetland are reviewed case-by-case.

are developed along a planned greenway trail cooperate in its construction and provide public access? There are four options:

- Acquire the greenway portion of the property in fee simple
- Acquire an easement for the greenway portion which stipulates public access as a condition
- Arrive at a mutual agreement between the developer and the County, in which creating the public access greenway is a condition of rezoning
- Provide incentives for developers to include public access greenways

Additional recommendations for developing a greenway system are provided in Section 4.

### *Condemnation*

The practice of condemning private land for use as passive or active recreational parkland is an established practice, though one to be exercised with care. “Friendly condemnation” is commonly used to set a purchase price that is acceptable to both the seller and the County. Condemnation may also prove necessary when there is absentee property ownership, when title to the property is not clear, or when it becomes apparent that obtaining the consent for purchase will be difficult because there are numerous heirs located in different geographic areas. The need to use condemnation to acquire property from unwilling sellers can be minimized with adequate public support for the Open Space and Greenway program.

### *Summary of Major Policies Related to Acquisition*

1. The County should consider adopting a system of evaluating properties for fee simple acquisition based in concordance with the recommended targets for preservation described in Section 3.
2. The County should examine the feasibility of establishing a system for the Purchase of Development Rights (PDRs). The PDR program could be focused on acquiring easements for stream banks and floodplains.
3. The County should consider negotiating multi-purpose easements that combine greenway public access rights with sewer and access easements.
4. The County should consider establishing a system for accepting donations of land. Preparations for receiving such donations could include:
  - enacting an enabling ordinance for land donations
  - establishing a system and responsibility for reviewing and evaluating offers of donations
  - asking the Board of Assessors to evaluate state law regarding the assessment of properties with conservation easements
5. The County should consider establishing *its own* wetlands/streambank mitigation bank to provide a low-cost mechanism to restore and protect streams and wetlands in the County.
6. The County should consider providing incentives for development projects that provide a public access greenway consistent with the Greenway System Plan.

## 3B – Planning, Zoning and Regulatory Tools

### *Conservation Subdivisions*

Conservation subdivisions are residential (or mixed use) developments in which a significant portion of the property is permanently protected as open space and development features are clustered on the remainder of the property. Conservation subdivisions represent a means of preserving significant areas of greenspace at little or no cost to taxpayers while providing increased variety in the housing market—plus infrastructure savings for developers in the bargain. In its greenspace application, Gwinnett County listed the use of conservation subdivisions as one of its tools for meeting greenspace protection goals. Pursuant to this, Gwinnett County created a Conservation Subdivision Overlay District in May, 2001 as an amendment to its zoning code. The ordinance is intended to:

- Promote and protect the environment and its value to people
- Require density neutral development
- Minimize the area of land disturbance
- Provide permanent open space protection
- Improve stream buffers
- Reduce storm water runoff
- Create wildlife corridors
- Protect scenic vistas, archeological and historic features

The ordinance provides the necessary framework for facilitating conservation subdivision development, although it is limited in geographic scope to the R-75 and R-100 zoning districts. It specifies a minimum of 40 percent and 50 percent, respectively, open space and is intended to be density-neutral, so that the same number of houses can be constructed on the property as allowed in the land use plan. This new zoning ordinance produces rewards for the County, the developer and the environment.

The conservation subdivision overlay district option is intended to provide permanent protection of open space. The Gwinnett Board of Commissioners has debated the best way to achieve this goal. At the time of this writing, the rules specify that the open space be deeded both to the homeowner's association and to every lot owner of the subdivision. It appears that this approach would indeed result in permanent protection, although the Georgia Community Greenspace Program might not consider such land permanently protected for its purposes. Placing a conservation easement on the open space remains an option for guaranteeing permanent protection and acceptance by the Georgia Community Greenspace Program. The Tree Advisory Committee has recommended to the Board of Commissioners new language for permanent protection of the open space, primarily through the use of conservation easements.

Since the conservation subdivision was introduced, a number of developers have applied for permits to build under the new rules. In the future, Gwinnett County may wish to consider expanding the overlay zone to other zoning districts. Given the present zoning, most undeveloped areas are classified as R-75 or R-100, so most new home developments can use the conservation subdivision option. However, providing a version of the ordinance for higher density zones and mixed-use zones would encourage the preservation of open space as part of redevelopment projects in more dense areas—a way to provide small neighborhood parks in areas where acquisition is difficult and expensive. In addition, if the County chooses to reclassify zoning districts according to the recommendations in the next section, the conservation subdivision regulations should be modified so that they remain an option in all these districts.

### *Managing the Patterns of Growth*

To be most effective at open space preservation, Gwinnett County should approach land preservation at two scales: the site level and the county-wide level. At the site level, tools such as conservation subdivisions are effective at protecting small parks and open spaces. With luck, these may be connected to form larger areas of open space. At the County level, planning is essential to preserve large areas of open space, to protect watersheds and to provide extended greenway trails.

Gwinnett County's current comprehensive plan and zoning ordinance specify that most of the remainder of the County will develop at a density of three units per acre. Many residents support low density development and are wary of higher densities, since they associate this with less expensive housing and lower property values. Nevertheless, a uniform pattern of low-medium density development can have negative consequences for greenspace preservation since land consumption rates are high. In addition, such a development pattern has economic and social costs. For example, road and utility networks must be longer, making them more expensive to build and maintain. Fire, ambulance and police services are also more expensive and response times are longer.

One way to combat this problem is to allow more housing options and higher housing densities in certain areas while limiting densities in others. Some cities in the County have developed mixed-use zoning districts that allow the blending of residential, commercial and office space within a single development (and requires preservation of 20% open space). This allows neighborhoods where residents can walk or bicycle to work and other destinations. Mass transit stops can be included in this type of development. Currently, Gwinnett County is constructing a form of city center as part of a Livable Centers Initiative. This approach of encouraging development in nodes can also be adapted to the largely undeveloped portions of the County.

### *Transferable Development Rights (Future Acquisition Tool)*

A transferable development rights (TDR) system is a tool that uses market forces to preserve greenspace while encouraging development in the most suitable areas. In a

TDR program, development rights are sold by landowners in “sending zones”, which are designated as priorities for greenspace protection, to landowners in “receiving zones,” which are designated for future growth. Once development rights are transferred, the sending area is protected with a conservation easement. Currently, the County Comprehensive Plan guides the growth patterns county-wide. Updates of the comprehensive plan may want to utilize TDR tools for future open space acquisition. State law changes are necessary to allow transferable development rights (TDR) to be a viable option for the County. If state laws do change, the County should explore TDR programs in greater detail.

### *Riparian Buffers*

Riparian buffers, also known as stream buffers and protected stream corridors, are areas along streams, rivers and lakes that are preserved in natural vegetation to protect water quality and to provide other benefits. For larger streams and rivers, the buffer can essentially be the floodplain; for smaller tributaries that lack an active floodplain, the buffer is simply the adjacent land. Preserving buffers is a cost-effective way to protect water quality because of the pollutant filtering functions of streamside land. Also, the property is often poorly suited to development and, therefore, inexpensive.

Riparian buffers can be protected by regulation or by acquisition. The Erosion and Sedimentation Act protects all Georgia streams (with a defined channel) with a minimum buffer of 25 feet. The Metropolitan Rivers Protection Act protects the Chattahoochee River with a 50’ buffer (and 150’ setback for impervious surfaces), while Chattahoochee tributaries within 2000’ of the mainstream are protected with a 35’ impervious buffer setback. Gwinnett County has also complied with the Georgia Planning Act by establishing wider buffers on the two small water supply watersheds that originate in the County: Big Haynes Creek and the Alcovy River. All streams in these watersheds have a minimum 50’ undisturbed buffer with an additional 25’ setback for impervious surfaces. Gwinnett County has also incorporated incentives for buffer protection into its revised stormwater management ordinance, passed early in 2001.

The problem with the state-mandated buffer regulations is that they provide only minimal protection to many streams which, from a scientific perspective, merit preservation. Because of this, most Atlanta metropolitan governments have established their own riparian buffer ordinances to provide a good level of protection for all streams. For example, Cobb County protects buffers of 50-200’ on its streams (depending on size and other factors); Fulton County has 75’ buffers with an additional 25’ setback; DeKalb County recently passed a 75’ buffer ordinance. In the future, Gwinnett County may wish to consider an ordinance that protects buffers of 50’ or more on all streams in the County. Given the considerable changes the County has made in the past year—protecting buffers on water supply watersheds and encouraging buffers for stormwater management—the County may wish to monitor the

effectiveness of current rules for a year or two before considering a new buffer ordinance.

It is important to note that the regulatory approach is only good for protecting buffers on developing lands, not lands that have already been developed. In addition, lands protected through regulation alone cannot be counted toward the 20 percent goal of the Georgia Greenspace Program. For both these reasons, it is recommended that Gwinnett pursue a buffer/floodplain acquisition program. In its greenspace application, Gwinnett County listed floodplain preservation as one of its main approaches for greenspace preservation. As noted earlier, this can be a very cost-effective way of both protecting water quality and preserving greenspace because many of these lands are flood-prone or contain wetlands and are less suited to development.

The most economical approach of all may be to purchase just the development rights to these properties. This protects the land from development and degradation but maintains it in private ownership. Many landowners would be willing to agree not to alter streamside land in exchange for a cash payment—the property owner literally gets paid to do nothing while the County protects land at low cost. On the other hand, it is not possible to have public access to such land unless the landowner agrees to this as well (which is a much more difficult proposition, as discussed elsewhere). Therefore, for lands to be used as greenway trails it is preferable to purchase the land outright.

#### *Highway Buffers*

It is recommended that the Department of Transportation work with the Department of Planning and Development and the Law Department to develop policies and procedures regarding Highway Buffers. Said policies and procedures may include: the purchase of additional rights-of-way that can be used as green corridors; specific purchase or set aside of additional green buffers contiguous to proposed new highways; requirements of larger front or rear yard setbacks along the frontage of certain highway corridors; or other methods as might be deemed appropriate. If adopted, these policies and procedures should also include proposed methods for funding for each.

#### *Amenity/ Open Space Requirements*

At present, Gwinnett County's Zoning Resolution and Development Regulations require passive or active recreation amenities in all multi-family and many single-family residential projects.

- 1) Single-family Subdivisions. A six percent (6%) passive, or three percent (3%) active recreation amenity is required in any single-family residential development which exceeds 50 gross acres. This amenity is deeded to a mandatory property owner's association for care and maintenance.

- 2) Modified (cluster) Single-family Subdivisions. In addition to the recreation amenity stated in item 1 above, this zoning requires preservation of open space equal to cumulative lot reductions (up to 4,500 square feet per R-100 lot and 3,000 square feet per R-75 lot). Open space areas are deeded to a mandatory property owner's association, and are typically 15 – 20% of the gross project area.
- 3) Conservation Overlay Single-family Subdivisions. In addition to the recreation amenity stated in item 1 above, this overlay district requires preservation of 40 – 50% of the gross project area as open space (dependent upon developed density). Open space areas are deeded to a mandatory property owner's association and an undivided interest in the open space is also deeded to each lot owner within the subdivision.

Note: presently, new methods are being considered to promote the preservation of open space in conservation overlay subdivisions, primarily through the use of permanent conservation easements.

- 4) Fee Simple Townhomes. A recreation amenity is required in any townhouse development which exceeds 10 gross acres. The requirement is six percent (6%) of the gross acreage for passive recreation, or three percent (3%) of the gross acreage for active recreation. This amenity is deeded to a mandatory property owner's association for the care and maintenance.
- 5) Multi-family Developments. An active or passive recreation amenity equal to 550 square feet per dwelling unit is required in all multi-family residential projects. Depending upon project density, this amounts to between 10% and 15% of the gross project acreage.

These regulatory requirements have resulted in the dedication and preservation of substantial recreation and open space acreage throughout Gwinnett County since their inception in the late 1980s and early 1990s. To achieve even greater preservation and/or qualification for the Governor's Open Space Program, Gwinnett County could increase or modify those regulations by amending the Zoning Resolution or Development Regulations.

Gwinnett County has also included preservation of greenspace and use of lower impact pervious/grassed parking in a number of nonresidential developments, most notably the Mall of Georgia at Millcreek in northeast Gwinnett. Through conditions of rezoning and adoption of an overlay district for the area surrounding the Mall of Georgia, a substantial open space/natural area along Ivy Creek has been preserved. Such requirements for open space set-asides, trails and/or greenways could be applied to other medium and large-scale projects through the zoning process or adoption of overlay requirements.

### *Amenity Incentives*

In addition to regulatory-based requirements, which Gwinnett County already has in place, an array of development incentives could be adopted. Many communities use amenity-based incentives as part of their development process to meet the need for open space and recreation improvements. In Murfreesboro, Tennessee, there are amenity incentives built into their multi-family residential zoning districts. As outlined in the Murfreesboro Zoning Ordinance revised in December of 1998, multi-family zone districts provide a density bonus not to exceed 30% of the maximum density permitted in the district when developments are over one acre in size and exceed five units.

The density bonus is provided to developments that have amenities such as walking and bicycle trails, preservation of a structure listed on the national Register of Historic Places and the preservation of natural features on the site, such as lakes and woods, as common open space. For preservation of natural areas, a credit up to a maximum increase of ten (10) percent, or ten units, is allowed for each one percent of ten thousand (10,000) square feet of amenity preserved or provided. For preservation of a historic structure, there is a bonus of one percent for each one thousand (1,000) square feet of floor area preserved for a maximum increase of five (5) percent of six (6) dwelling units. For development of walking or bicycle trails constructed with a minimum width of four (4) feet and with a permanent hard surface, a bonus of one percent for each 1,000 linear feet of improved trails for a maximum increase of five (5) percent of six (6) dwelling units is allowed.

Incentive-based acquisition of open space, or for the development of greenways, is a tool that could be used in Gwinnett County. The example in Murfreesboro provides density incentives only. Other incentives could be developed in addition to, or rather than, density bonuses. These could include items such as a reduction in the number of required parking spaces in commercial or retail developments, road width reductions, lot size reductions and removal of sidewalks where trails are provided are a few examples. Amenity incentives such as these could be formulated for both new construction projects and for redevelopment projects. The ratio of the incentives for each new and redevelopment project would be predetermined and incorporated into the zoning regulations.

Redevelopment project incentives could be higher than for new development projects if specific desired open space and greenway goals of the County are achieved by redevelopment. As an example of how an amenity incentive could work, let's look at the redevelopment of an old retail center that is located along a stream corridor. In this example, let us assume that the retail center contains fill material that encroaches into the floodplain beyond the limits that would be permitted under current zoning and storm water regulations. In this example it would be difficult to stimulate interest in a complete redevelopment of the site because a center of existing size could not be redeveloped and the center in its current configuration is obsolete. However, because

the site in this example is located on a proposed greenway route and adjacent to a proposed transit stop, there is justification for reducing the number of required parking spaces.

As an amenity incentive, the reduction in parking spaces could be offered in return for developing the greenway and providing a sidewalk connection to the transit stop. Also, reducing the on-site parking requirements would allow additional land to be available to meet the new storm water regulations. The County would gain a section of greenway, improved water quality and reduction of impervious surfaces located in the floodplain.

Other sites with different variables exist throughout the County. By establishing amenity incentives that address different site conditions, the cumulative result would be improvements in pedestrian and bicycle transportation, larger areas of stream corridor buffers and improved water quality—all of which are goals of this master plan.

#### *Policy Recommendations*

- Monitor the effectiveness of the conservation subdivision ordinance in protecting open space.
- Continue the use of conservation easements in protecting open space in conservation subdivisions.
- Extend the option for conservation subdivisions to other zoning districts.
- Increase public awareness of the economic and quality-of-life benefits of mixed-use development, greenways and higher density residential developments.
- Map priority protection areas and development nodes on future land use maps.
- Consider updating the existing comprehensive plan to designate portions of the County as higher or lower density, as appropriate.
- Consider the use of a transferable development rights program once the state enabling legislation has been amended.
- Consider providing incentives for developments that provide public-access greenways.
- Consider providing redevelopment incentives.
- Monitor the effectiveness of the current buffer protection for water supply watersheds and storm water management.
- Consider the development of a riparian buffer ordinance calling for the protection or acquisition of riparian corridors along streams.

### **3C. Open Space Management and Operations Issues**

#### *Overview*

Operating, maintaining and managing a system of open space and greenways in Gwinnett County will require a coordinated effort among all County departments, private sector organizations and individuals. The following text defines key aspects of open space and greenway system management, beginning with a discussion of a governance structure for the system, followed by definitions of operational policies, facility management, land management, safety and security, trail user rules and regulations, an emergency response plan and risk management program.

#### *Governance Structure*

It is recommended that Gwinnett County utilize the existing framework of County government services to implement and manage the Gwinnett County Greenways System. This would be accomplished by defining specific roles and responsibilities for existing departments within the County. Additionally, it is anticipated that the County would partner with local municipal governments, private sector organizations and the state of Georgia to implement the program. The following text provides guidelines for how this can be accomplished.

#### *Role of Gwinnett County*

The Gwinnett County Open Space and Greenway System will be developed and managed by the County and its departments. It will be necessary for the County to partner with local municipalities throughout the County to build and maintain various segments of the Open Space and Greenway System. Listed below and on the following pages are the key departments and organizations that will play a role in this implementation.

#### *Role of the Gwinnett County Board of Commissioners*

The Gwinnett County Board of Commissioners will be called upon to implement the recommendations of this master plan. The County Commissioners will need to work with the County Administrator to determine the most effective implementation strategy for the county-wide Open Space and Greenway System. This will include engaging in public-private partnerships, determining an appropriate financing strategy for greenways, and defining appropriate coordinated capital improvement projects which maximize the use of County resources.

#### *Role of the Gwinnett County Administrator*

The Gwinnett County Administrator is vested with management responsibilities for the community's public resources. As such, the primary role of the County Administrator, with respect to the Open Space and Greenway System, would be to direct the activities of the various departments of the County as necessary to

perform required acquisition, development, stewardship and maintenance activities for the Open Space and Greenway System.

#### *Role of Department of Community Services*

The Department of Community Services will work under the direction of the County Administrator to acquire necessary land, prepare detailed corridor master plans and construction documents, and serve as the lead department for implementing the Open Space and Greenway System. The Department should become the primary steward for greenway lands and facilities. However, due to the size and scope of this endeavor, it is strongly encouraged that the Department partner with other County departments, municipal governments and the private sector to fulfill this responsibility.

#### *Role of Department of Planning and Development*

The Department of Planning and Development should provide support for the Open Space and Greenway Master Plan and assistance with future implementation of the system. This can be accomplished by defining future greenways within related planning efforts; notifying the Department of Community Services of proposed land use developments adjacent to a greenway corridor; utilizing the rezoning process to encourage dedication of lands, including sidewalks and bicycle facilities for the Open Space and Greenway System; and planning transportation improvements in coordination with greenways.

#### *Role of Department of Public Utilities*

The Gwinnett County Department of Public Utilities is an important player in the implementation strategy for the Open Space and Greenway System. The Department manages the system of sanitary and stormwater sewers which offers enormous potential for shared use with greenway development objectives. However, existing easements do not allow multiple uses. Easements would have to be re-negotiated with property owners to allow additional uses. For the expansion and development of new sanitary sewer lines, the Department should consider the use of a joint-use easement document during right-of-way negotiations to acquire subsurface and surface rights from willing sellers, provided additional funding is available. During facility development, the Department should partner with other County departments and local municipalities to build trail facilities where feasible. The Department could function as a greenway developer in partnership with the Department of Community Services. Additionally, stormwater management objectives can be enhanced through the development of the Open Space and Greenway System through the use of funds obtained from federal and state grants.

#### *Role of Department of Transportation*

The Gwinnett County Department of Transportation should also assist the Department of Community Services with the implementation of this master plan.

The DOT can insure that plans and projects are consistent with the County's transportation objectives. The DOT will also work with other County departments to assist in the identification of and applications for funding for federal, state and regional programs, such as the Transportation Enhancement Act (TEA).

#### *Role of Law Department*

The Gwinnett County Law Department will provide legal assistance to the Department of Community Services with respect to the acquisition of land and development of greenway facilities.

#### *Role of Support Services*

The Department of Support Services should assist with the acquisition process for open space and greenway land and facilities by securing appropriate surveys, environmental tests and research of potential sites as necessary.

#### *Role of Department of Police Services*

The Department of Police Services should assist the Department of Community Services with patrolling and law enforcement for open space and greenway lands and facilities.

#### *Role of Department of Financial Services*

The Department of Financial Services will be called upon to determine an effective, coordinated capital improvements program that enables various County departments to share resources in support of greenway development. They will also assist in the development of grant applications and the administration and disbursement of grant funds on open space and greenway projects.

#### *Role of Cities in Gwinnett County*

The cities of Auburn, Berkley Lake, Buford, Braselton, Dacula, Duluth, Grayson, Lawrenceville, Lilburn, Loganville, Norcross, Snellville, Suwanee and Sugar Hill have very important roles to play in the implementation of this greenway plan. Each is a partner in the development of the county-wide Open Space and Greenway System. As such, the physical development, maintenance and acquisition of the Open Space and Greenway System should be a shared responsibility wherever and whenever possible. The specific level of participation in any given project will be subject to the unique conditions of each project. The municipalities should embed the greenway philosophy in their planning and zoning processes. The cities should also develop portions of the Open Space and Greenway System located within their corporate limits and be prepared to maintain these elements of the program in partnership with the County. The cities have much to gain through their involvement with the greenway program and should take every opportunity to coordinate their activities with those of the County to ensure that the best possible greenway solution is realized.

### *Role of Schools*

The Gwinnett County school system should plan for providing open space and greenways as part of their land acquisition process. Public school sites not only provide open space but also present opportunities for environmental education. Providing connections between schools, neighborhoods and other public facilities with a greenway system is an important part of an open space system.

### *Role of State of Georgia*

Through the Georgia Greenspace Program, the state of Georgia is a partner in the future development of the Gwinnett County Open Space and Greenway System. The goals of Gwinnett County's Open Space and Greenway System satisfy objectives of the State Greenspace Program in areas related to water quality and ecological protection. The County has been the recipient of grant funds from the Greenspace Program to assist with property acquisition. The County anticipates making future applications to the State for acquisition and system development. The County will continue to maintain consistency with the objectives of the Georgia Greenspace Program.

### *Role of Private Sector*

The private sector throughout Gwinnett County is the primary beneficiary of the Gwinnett County Open Space and Greenway System. As such, private organizations, businesses and individuals can and should play an important role in the development and management of the system. Private sector groups and businesses can sponsor implementation projects for open space and greenways as a partner of the County. These groups can also help to maintain open space and greenway lands through cooperative management agreements with the County.

### *Role of the Non-Profit Land Trust*

Non-Profit Land Trust can become an important partner in the future development of the Gwinnett County Open Space and Greenway System. One group that has initiated several recent projects is the Gwinnett Open Land Trust. Working with the Gwinnett Open Land Trust and Non-Profit Land Trust, many open space goals can be achieved. This can include items such as:

1. the education of citizens on the objectives of the master plan
2. the coordination of its activities with other entities, programs and departments
3. the identification and solicitation of resources to accelerate land acquisition for the system
4. the development of a regional greenway network in partnership with surrounding counties

The Non-Profit Land Trust can also support the implementation and development of trails in accordance with the recommendations of this master plan.

### *Role of Local Businesses and Corporations*

Gwinnett County businesses and corporations might choose to sponsor a segment of greenway for development or maintenance. Businesses and corporations can work with the Department of Community Services to give money, materials, products and labor toward the development of a greenway facility. Businesses can also consider installing facilities, such as bike racks or lockers, benches, and signage that links their operations to the Open Space and Greenway System.

### *Role of Civic Organizations*

Local civic groups and organizations, including the Junior League, Boy Scouts and Girl Scouts, garden clubs, YMCA, Kiwanis and Rotary Clubs, to name a few, can be participants in the Gwinnett County Open Space and Greenway System. These organizations can play a vital role in building sections of greenway trails, maintaining and managing greenway lands and facilities, and co-hosting events that raise money for the Open Space and Greenway System. There are many ways in which civic organizations can participate in the development of the Open Space and Greenway System. The most appropriate involvement can be determined by matching the goals and objectives of each organization to the needs of the greenway program.

### *Role of Individual Citizens*

Local residents who are interested in the development of Gwinnett County's Open Space Greenway System can participate by agreeing to donate their time, labor and expertise to the Department of Community Services. Residents might choose to partner with a friend or form a local neighborhood group that adopts a section of greenway for maintenance and management purposes. As an adopt-a-greenway organization, individuals might help pick-up trash, plant flowers and trees, care for newly planted vegetation and serve as additional "eyes and ears" for safety and security on open space and greenway lands. All volunteer efforts would be recognized by the Department of Community Services through a community-wide program.

### *Staffing the Open Space and Greenway Program*

In order to implement the recommendations of this master plan, it will be necessary to add staff resources to the Gwinnett County Department of Community Services to facilitate, coordinate and implement the activities of the Open Space and Greenway System. The greenway program will need new staff positions, as well as lead positions in various departments, to assist in the implementation of the master plan.

### *Open Space Coordinator*

The Open Space Coordinator should be a staff person working with the Community Services Division whose role is to coordinate open space and greenways planning

efforts among County departments and public groups. The Open Space Coordinator should lead the public education process on open space and greenways. The Open Space Coordinator should focus on the overall program objectives and not be directly involved in the daily management duties of the system. The Open Space Coordinator will work with municipalities throughout the County to achieve connectivity between municipal and County greenways.

As the Open Space and Greenway System grows, it will be necessary to provide additional staff to oversee the management and implementation of the system. This will include oversight of planning and design of specific greenway projects, maintenance and management of the completed sections, and coordination with consultants working for the County. These duties may be completed by existing park staff if they have the capacity to expand their present workload. Additionally, the departments of Planning and Development, Public Utilities, Police and Transportation will be responsible for various aspects of the overall program.

#### *Open Space and Greenways Operations*

Over the course of time, Gwinnett County will encounter a variety of issues that are important to the successful management and operation of the Open Space and Greenway System. The following operational policies are defined to assist Gwinnett County in responding to typical greenway implementation issues. More specific problems and issues may arise during the long-term development of the system that result in additional policies being considered and adopted.

#### *Right of Public Access and Use of Trail Lands*

The general public should have access to and use of those greenway lands that support public use (i.e. trail development), and that are owned by Gwinnett County or are on land where the County has secured the right of public access and use. All access and use is governed by existing County policies and should also be governed by a Greenway Trail Ordinance. The use of all trails is limited to non-motorized uses, including hiking, bicycling, running, jogging, wheelchair use, skateboarding, in-line skating (rollerblading), equestrian use, mountain biking and other uses that are determined to be compatible with the County's greenway trails.

#### *Naming of Greenways*

Greenways are named for the significant natural features that are found within the corridor. Greenways can also be named after an individual or individuals if these persons are truly distinguished within the community, or if these persons have contributed a gift equal to more than 50% of the value of greenway development within that corridor segment.

#### *Fencing and Vegetative Screening*

Gwinnett County should work with each landowner on an individual basis to

determine if fencing and screening is required and appropriate. The County may agree to fund the installation of a fence or vegetative screen; however, it should be the responsibility of the adjacent property owner to maintain the fence or vegetative screen in perpetuity, including the full replacement of such fence or screen in the event of failure or deterioration due to any circumstances.

#### *Adopt-a-Greenway Program*

An Adopt-a-Greenway Program should be established by Gwinnett County to encourage community groups, families, businesses, school groups, civic clubs and other organizations to join in managing the Open Space and Greenway System. Gwinnett County should implement this program for every greenway corridor in the system, and work closely with local organizations to ensure that these groups manage and maintain trails in a manner that is consistent with County objectives. The County should develop written agreements for each Adopt-a-Greenway entity and keep a current record of this agreement on file. Adopt-a-Greenway entities will be assigned a specific section of the Open Space and Greenway System, defined by location or milepost. The activities of each organization should be monitored by the County or its designee. Agreements for management can be amended or terminated at any time by either party, giving 30 days written notice.

#### *Management Agreements*

Management Agreements will be established between Gwinnett County and specific public or private organizations wishing to assist with the management of designated segments of the Open Space and Greenway System. The objective of these agreements is to define areas of maintenance and management that are compatible with existing land management activities, especially where greenways intersect with public or private properties and/or right-of-ways. Management agreements spell out specific duties, responsibilities and activities of the Gwinnett County and public or private organization that wishes to assist with management activities. They can be amended or terminated at any time by either party, giving 30 days written notice.

#### *Cross Access Agreements*

Gwinnett County can use cross access agreements to permit private landowners that have property on both sides of a greenway corridor access to and use of a greenway corridor to facilitate operation and land use activities.

Cross access agreements are based on case law of the United States and specific experiences from other greenway trail systems throughout the United States. Adjacent landowners generally have the right to use the access at any time. However, access cannot block the right-of-way for trail users, other than for temporary measures such as permitting livestock to cross, or transporting equipment. Adjacent landowners are responsible for acts or omissions that would

cause injury to a third party using the trail. If a landowner must move products, materials, livestock or equipment across the trail on a regular basis, appropriate signage should be installed to warn users of the trail to yield for such activities.

Crossing of abandoned or active rail lines, utility corridors and/or roads and highways will require the execution of agreements with companies, local, state or federal agencies and organizations that own the rights-of-way. These crossings must provide clearly controlled, recognized, and defined intersections in which the user will be warned of the location. In accordance with the American Association of State Highway Transportation Officials (AASHTO) and the Manual on Uniform Traffic Control Devices (MUTCD), the crossing will be signed with appropriate regulatory, warning and information signs.

#### *Greenway Facility Management*

Greenway facilities shall be maintained in a manner that promotes safe use. All trail facilities should be managed by Gwinnett County or its designee. Trail maintenance should include the removal of debris, trash, litter, obnoxious and unsafe man-made structures, and other foreign matter so as to be safe for public use. Trail heads, points of public access, rest areas and other activity areas should be maintained in a clean and usable condition at all times. The primary concern regarding maintenance should always be public safety.

All trail surfaces should be maintained in a safe and usable manner at all times. Rough edges, severe bumps or depressions, cracked or uneven pavement, gullies, rills and washed out treads should be repaired immediately. Volunteer vegetation occurring in the tread of the trail should be removed in such a manner so that the trail surface is maintained as a continuous, even and clean surface.

#### *Land Management*

Property owned or used by Gwinnett County for the Open Space and Greenway System shall be maintained in a condition that promotes safety and security for greenway users and adjacent property owners. To the extent possible, the property shall also be maintained in a manner that enables the corridor to fulfill multiple functions (i.e. passive recreation, alternative transportation, stormwater management and habitat for wildlife). Property that is owned or managed by other entities should be managed and maintained in accordance with the policies of that public body responsible for the affected parcel.

Vegetation within each greenway corridor shall be managed to promote safety, serve as wildlife habitat, buffer public trail use from adjacent private property (where applicable), protect water quality, and preserve the unique aesthetic values of the natural landscape. Removal of native vegetation shall be done with discretion, removal of exotic species should be accomplished in a systematic and

thorough manner. At times, and in appropriate locations, Gwinnett County may choose to use control burns or approved herbicides and pesticides to manage lands and vegetation in public ownership.

Vegetation adjacent to trails shall be managed as necessary to maintain clear and open lines of sight along the edge of the trail and eliminate potential hazards that could occur due to natural growth, severe weather or other unacceptable conditions. To promote safe use of any greenway trail, all vegetation should be clear cut to a minimum distance of three feet from each edge of a trail. Selective clearing of vegetation should be conducted within a zone that is defined as being between three to ten feet from each edge of a trail. At any point along a trail, a user should have a clear, unobstructed view, along the centerline of a trail, 300 feet ahead and behind his/her position. The only exception to this policy should be where terrain or curves in a trail serve as the limiting factor.

Gwinnett County or its designated agent should be responsible for the cutting and removal of vegetation. Removal of vegetation by an individual or entity other than Gwinnett County or its designee shall be deemed unlawful and subject to fines and/or prosecution.

It may also be necessary for Gwinnett County to conduct wildlife management programs on lands that are publicly owned. This shall be accomplished in a manner that is in keeping with accepted laws, professional practices and/or recommended strategies that are provided to Gwinnett County by wildlife management experts.

### *Safety and Security*

In order to provide a standard of care that offers reasonable and ordinary safety measures, Gwinnett County shall cooperatively develop and implement a Safety and Security Program for the Open Space and Greenway System. This program will consist of well-defined safety and security policies; the identification of trail management, law enforcement, emergency and fire protection agencies; the proper posting, notification and education of the trail user policies; and a system that offers timely response to the public for issues or problems that are related to safety and security. The safety and security of the Open Space and Greenway System will need to be coordinated with local law enforcement officials, local neighborhood watch associations and Adopt-a-Greenway organizations. Crime Prevention Through Environmental Design practices should be followed in the design and operation of the greenway and open space system. In areas where the public access will be allowed, vegetation pruning practices to maximize safety should be followed.

*Important components of the safety and security program are listed below.*

Gwinnett County should:

- 1) Work with law enforcement agencies to establish a Greenway Safety and Security Committee that can meet periodically to discuss management of the Open Space and Greenway System
- 2) Prepare a Greenway Safety Manual, distribute it to management agencies and post it at all major trail heads
- 3) Post User Rules and Regulations at all public access points to greenway trails
- 4) Work with the management agencies to develop Trail Emergency Procedures
- 5) Prepare a Safety Checklist for the Open Space and Greenway System, and utilize it monthly during field inspection of greenway facilities
- 6) Prepare a Greenway User Response Form for complaints and compliments and provide copies at all trail heads
- 7) Work with management agencies to develop a system for accident reporting analysis
- 8) Conduct a regular Maintenance and Inspection Program and share the results of these investigations with all management agencies
- 9) Coordinate other Public Information Programs that provide information about greenway events and activities that County residents can participate in
- 10) Have an ongoing evaluation of greenway program objectives

#### *User Rules and Regulations*

Trails within greenway corridors shall be operated like all other trails provided within Gwinnett County Parks. Where trails are lighted for nighttime use, the rules established within the Trail Ordinance should govern permitted uses and activities.

Gwinnett County shall enforce trespassing laws as defined under Georgia General Statutes for publicly owned lands and facilities.

Gwinnett County should always discourage the general public from using any segment of a greenway trail that is under construction. Trail segments should not be considered officially opened for public use until such time as a formal dedication ceremony and official opening has been completed. Individuals who use greenway segments that are under construction, without written permission from Gwinnett County, should be deemed in violation of this access and use policy and treated as a trespasser.

#### *Trail Ordinance*

Multi-use conflict is a national problem for community and regional open space and greenway systems. Typically, conflicts are caused by overuse of a greenway trail; however, other factors may be problematic including poorly designed and

engineered trail alignments, inappropriate user behavior, or inadequate facility capacity. The most effective conflict resolution plan is a well-conceived safety program that provides the individual user with a Code of Conduct for the greenway trail, sometimes called a Trail Ordinance. Several communities across the United States have adopted progressive trail ordinances to govern public use and keep trails safe for all users. The following Rules and Regulations are recommended for the Gwinnett County Greenway Trails System. These rules should be displayed on brochures and information signs throughout the Open Space and Greenway System.

1. **Be Courteous:** All trail users, including bicyclists, joggers, walkers, wheelchairs, skateboarders and skaters, should be respectful of other users regardless of their mode of travel, speed or level of skill. Never spook animals; this can be dangerous for you and other users. Respect the privacy of adjacent landowners! No trespassing allowed from trails; remain on trails at all times.
2. **Keep Right:** Always stay to the right as you use the trail, or stay in the lane that has been designated for your user group. The exception to this rule occurs when you need to pass another user.
3. **Pass on the Left:** Pass others going in your direction on their left. Look ahead and behind to make sure that your lane is clear before you pull out and around the other user. Pass with ample separation. Do not move back to the right until you have safely gained distance and speed on the other user. Faster traffic should always yield to slower on-coming traffic.
4. **Give Audible Signal When Passing:** All users should give a clear warning signal before passing. This signal may be produced by voice, bell or soft horn. Voice signals might include "Passing on your left!" or "Cyclist on your left!" Always be courteous when providing the audible signal - profanity is unwarranted and unappreciated.
5. **Be Predictable:** Travel in a consistent and predictable manner. Always look behind before changing position on the trail, regardless of your mode of travel.
6. **Control Your Bicycle:** Lack of attention, even for a second, can cause disaster - always stay alert! Maintain a safe and legal speed at all times.
7. **Do not Block the Trail:** When in a group, including your pets, use no more than half the trail, so as not to block the flow of other users. If your group is approached by users from both directions, form a single line or stop and move to the far right edge of the trail to allow safe passage by these users.
8. **Yield When Entering or Crossing Trails:** When entering or crossing the trail at an uncontrolled intersection, yield to traffic already using the other trail.
9. **Do not Use this Trail Under the Influence of Alcohol or Drugs:** It is illegal to use this trail if you have consumed alcohol in excess of the statutory limits, or if you have consumed illegal drugs. Persons who use a prescribed medication should check with their doctor or pharmacist to ensure that it will not impair their ability to safely operate a bicycle or other wheeled vehicle.

10. Clean-up Your Litter: Please keep this trail clean and neat for other users to enjoy. Do not leave glass, paper, cans or any other debris on or near the trail. Please clean up after your pets. Pack out what you bring in - and remember to always recycle your trash.
11. Keep Pets on Leashes: All pets must be kept on secure and tethered leashes. Keep pets off of adjacent private property. Failure to do so will result in a fine.
12. Prohibition on Camp Fires: Fires, for any purpose, are prohibited within the trails system. Any person caught lighting a fire for any purpose will be prosecuted to the fullest extent of the law.

### *Emergency Response Plan*

In order to effectively patrol the Open Space and Greenway System and respond to potential fire, flash floods and other natural or human-caused disasters, Gwinnett County shall adopt a greenway emergency response plan. This plan defines a cooperative law enforcement strategy for greenways based on services required and those that are typically provided by police, sheriff, fire and EMS agencies. Specifically, all trails should be provided with an address system that denotes specific locations along the length of a trail corridor.

A site plan that illustrates points of access to each trail corridor should be produced and kept on file at the Gwinnett County Office of Emergency Services and provided to each agency. Trails in flash flood areas shall be appropriately signed to warn users. Each trail should be designed to permit access for law enforcement, fire and EMS agencies and vehicles that are a minimum of 6.5 tons gross vehicle weight. Typically, inter-governmental agreements are executed for this. A system of cellular-type emergency phones should be located in remote sections of the system, providing users with access to the area 911 Emergency System. All emergency phones should be placed above the flood elevation to ensure long term usage.

The emergency response plan should also define the agencies that should respond to 911 calls, and provide easily understood routing plans and access points for emergency vehicles. For long distance trails, access points for emergency and maintenance vehicles should be located at reasonable distances from trail heads (approximately every 2-3 miles). Local hospitals should be notified of these routes so that they may also be familiar with the size and scope of the project. The majority of the greenway system should be designed and developed to support a minimum gross vehicle weight of 6.5 tons. Developed access points to open space lands should be designed for emergency equipment access. Emergency plans should also be developed for remote open space properties.

### *Risk Management Plan*

The purpose of a Risk Management Plan is to increase safety for the users of the Gwinnett County Open Space and Greenway System and reduce the potential for

accidents to occur within the system or on lands adjacent to the system. While it is impossible to guarantee that all risk will be eliminated by a Risk Management Plan, implementation of a plan is, in fact, a critical step to reduce liability and improve safety. A Risk Management Plan establishes a methodology for greenway management that is based on current tort liability and case law in the United States related to the development, operation and management of public use greenway lands and facilities.

The ultimate responsibility for managing the Open Space and Greenway System, as defined within this master plan, rests with Gwinnett County. The Risk Management Plan has as its major goals:

1. Risk Identification: determining where risk (threat to safety or potential loss) exists within the corridor
2. Risk Evaluation: conducting appropriate examination of areas defined as a risk and determining the factors that contribute to risk
3. Risk Treatment: defining and implementing an appropriate solution to the area of risk in accordance with one of the four options:
  - a. Risk avoidance: prohibiting use of a risk area
  - b. Risk reduction: limit use of area and repair risk area immediately
  - c. Risk retention: obtain waivers from all potential users of the risk area
  - d. Risk transfer: transfer risk area (property) to an agency better suited to manage the area

The following sixteen-step plan should be implemented by Gwinnett County to establish a Risk Management Plan for the Gwinnett County Open Space and Greenway System.

1. Develop a policy statement about risk management.
2. Conduct a needs assessment for the greenway program.
3. Determine goals and objectives for risk management - what are acceptable and not acceptable management levels.
4. Develop specifications for site and facility development.
5. Establish a clear and concise program for risk management.
6. Define supervision and responsibility for risk management.
7. Define appropriate rules and regulations that govern the use of the trail system.
8. Conduct routine/systematic inspections and investigations of the trail system.
9. Develop an accident reporting and analysis system.
10. Establish procedures for handling emergencies.
11. Develop appropriate releases, waivers and agreements for use and management.
12. Identify best methods for ensuring against risk.
13. Develop a comprehensive in-service training program for employees of the County.

14. Implement a public relations program that can effectively describe the risk management program and activities.
15. Conduct periodic reviews of the Risk Management Plan by outside agents to ensure that the Plan is up-to-date.
16. Maintain good legal and insurance representation.

### *Liability*

The design, development, management and operation of the Gwinnett County Open Space and Greenway System must be carefully and accurately executed in order to provide a resource that protects the health and welfare of the public.

Liability may occur when a facility has been under-designed to handle its intended volume of use; when management of the facility is poor; or when unexpected accidents occur because the trail manager failed to recognize the possibilities of a potentially hazardous situation. To reduce the possibility and exposure to liability, the County should have in operation the following measures prior to opening the first segment of greenway:

1. A thorough Maintenance Program that provides the appropriate duty or level of care to greenway users
2. A Risk Management Plan that appropriately covers all aspects of the Open Space and Greenway System and, as necessary, adjacent landowners
3. A comprehensive working knowledge of public use laws and recent case history applicable in Georgia

Gwinnett County's existing self-insurance program may be adequate to protect the County government from financial loss that might occur through the development and operation of the Open Space and Greenway System. Trails are no greater liability to Gwinnett County than parks and recreation, sidewalks or urban open space resources. The County should review its current policy and check coverage to be certain that all aspects of its policies are up-to-date.

Gwinnett County should exercise reasonable care in the design and construction of all greenway facilities to reduce hazardous, public nuisance and life threatening situations. Recreational Use Statutes in Georgia serve to reduce the exposure that adjacent landowners might expect to realize from the proximity of trails to private property. In fact, it is very difficult to find any case law in the United States where an adjacent property owner has been sued because a trail user strayed onto the adjacent private property and fell victim to an accident that was caused by the adjacent landowner. Some landowners have claimed that their insurance rates will go up because of the presence of a trail abutting their property. Once again, there is no case history among insurance companies to support this claim—provided the landowner has not gone out of their way to create an attractive nuisance and lure trail users onto their property.

It is also important that a fee not be charged to use any portion of the Open Space and Greenway System because typically, this may impact the way in which the recreational use statutes in Georgia apply to the use of the system. A voluntary donation applied to the Open Space and Greenway System will generally not affect the recreational use statute.

### *Recommendations Summary*

The following recommendations regarding tools, policies and actions to assure the successful acquisition, administration and management of open space and greenways are for consideration by Gwinnett County.

## **GENERAL ADMINISTRATION**

### *Open Space and Greenway Administration*

1. The County should consider utilizing the existing framework of County government services to implement and manage the open space and greenways system and define specific roles and responsibilities for existing departments.

*Additionally, the County should also consider:*

- A. using the Open Space and Greenway Master Plan as a guide for implementing the open space and greenways program;
- B. establishing that the County Administrator will continue in the role of directing the activities of the various departments of the County as necessary to perform required acquisition, development, stewardship and maintenance for the open space and greenway system as described below;
- C. establishing that the Department of Financial Services will develop an effective coordinated capital improvements program that enables County departments to share resources in support of the master plan;
- D. establishing that the Department of Community Services should work under the direction of the County Administrator to acquire necessary land, prepare detailed greenway corridor master plans and construction documents, and serve as the lead department for implementing the recommendations of the master plan;
- E. assigning lead responsibilities to staff within the Department of Community Services to implement the recommendations of this plan, as well as additional staff as necessary to facilitate, coordinate and implement the proposed activities and adequately fund needed staff positions;
- F. establishing that the Department of Planning and Development will provide support for the Open Space and Greenway Master Plan and assistance with future implementation of the recommendations;
- G. establishing that the Department of Public Utilities will consider the use of a joint public access and utility easements during rights-of-way negotiations in areas

where the need for pedestrian and bicycling facilities has been identified, as well as consideration of acquiring conservation easements in riparian areas to protect water quality;

- H. establishing that the Law Department will provide legal assistance with respect to the acquisition of land, development rights and development of greenways;
- I. establishing that the Department of Support Services will assist with issues related to land acquisition;
- J. establishing that the Police Department will assist with patrolling and law enforcement on open space and greenway properties;
- K. providing an organized opportunity for citizens to participate in open space and greenway issues which might involve amending the responsibilities of an existing citizen committee, such as the Recreation Authority or the Tree and Landscape Committee, to include input on open space and greenways activities;
- L. establishing that the Department of Transportation will assist with the implementation of this master plan and, as portions of this master plan are consistent with the recently completed Comprehensive Transportation Plan (CTP), the Department can assist by applying for funding through federal grant program for greenway projects and by allocating wetland and stream bank mitigation funds to areas designated for preservation in the Open Space and Greenway Master Plan and providing on road elements outlined in the CTP. The Department of Transportation and the Department of Community Services will work together to ensure that both agencies' pedestrian and bicycling facilities complement one another and are linked where appropriate.

#### *Partnership*

- 1. The County should consider encouraging the municipalities within Gwinnett County to adopt compatible plans and ordinances with respect to open space and greenways.
- 2. Develop partnerships with Land Trust and other non-profits whose open space goals are consistent with the use of the County.

#### *Education*

- 1. The County should consider promoting increased public awareness of the economic and quality of life benefits of land conservation, greenways and other open space developments.

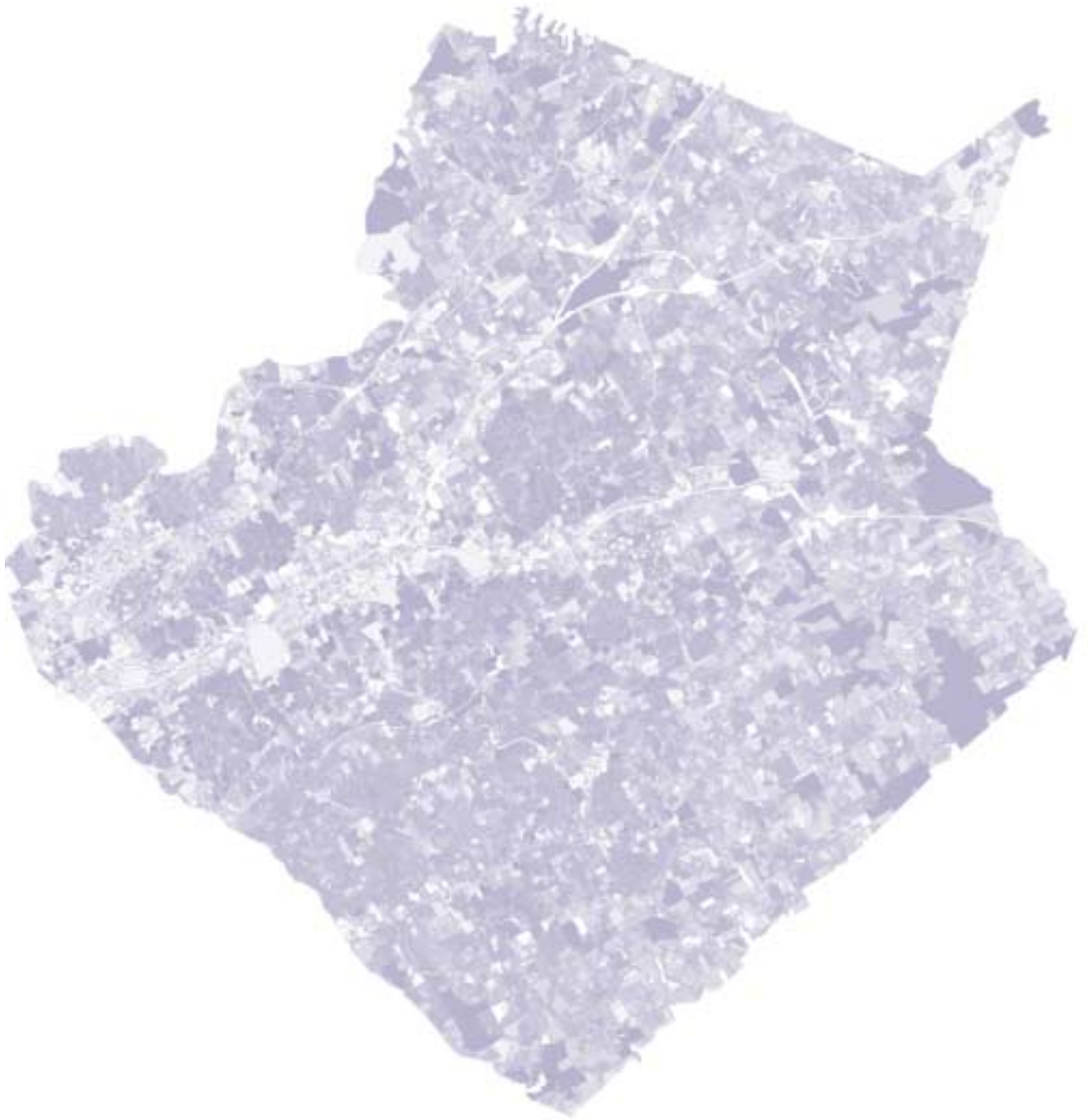
#### *Resource Management*

##### *Greenspace Management and Maintenance*

- 1. The County should consider developing management plans for all open space and greenway properties which could be valuable in:
  - A. identifying valuable resources;

- B. determining compatible uses relative to adjacent lands;
  - C. determining administrative needs of the specific parcel, including maintenance, security and funding requirements for both capital projects, long-term operations and maintenance;
  - D. recommending both short-term and long-term action plans for the management and protection of the natural resources.
2. The County should consider maintaining open space and greenway facilities in a manner that promotes safe use. In connection with this recommendation the County should consider:
- A. developing and implementing a safety and security program for all open space and greenway properties in order to provide a standard of care that offers reasonable and ordinary safety measures;
  - B. operating public open space and greenway trails in a manner that is consistent with the operational goals of the County;
  - C. enforcing trespassing laws as defined under the Official Code of Georgia for publicly owned lands and facilities;
  - D. developing a list of rules and regulations to be displayed on brochures and signs throughout the Open Space and Greenway System;
  - E. adopting an emergency response plan in the event of fire, flash floods and other natural or human-caused disasters.
3. The County should consider developing a Risk Management Plan that assures:
- A. risks and exposures associated with open space and greenways should be reviewed periodically and addressed by Risk Management, using any of the Risk Management techniques that are available and accepted by the Board of Commissioners;
  - B. reasonable care is exercised in the design and construction of all facilities to reduce the potential for hazardous, public nuisance and life threatening situations.
4. The County should consider not charging a fee to use any portion of the Open Space and Greenway System. Charging a fee would impact the application of the state's recreational use statute. A voluntary donation applied to the program will generally not affect the recreational use statute.
5. The County should consider partnering with municipalities within the County to build and maintain various segments of the Open Space and Greenway System.

# Section 4



## Funding Issues

### 4A. Funding Issues Overview

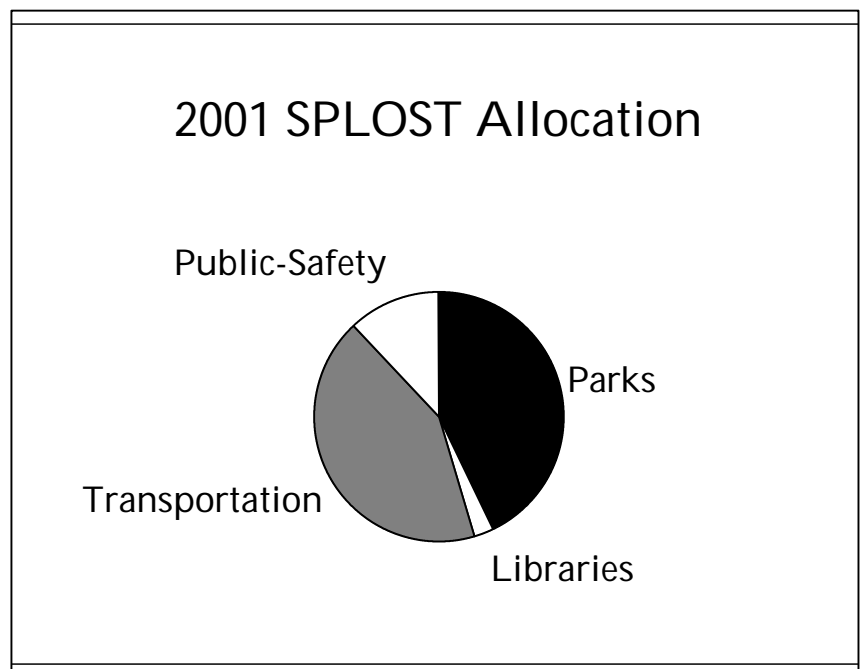
In this section various funding options that are available to the County will be discussed. These options include citizen supported tax programs such as the Special Local Option Sales Tax, federal, state and local grant programs and volunteer programs. Due to size and scope of the desired Open Space and Greenway Master Plan program, it is anticipated that a combination of all of these funding sources will be needed for the foreseeable future to achieve the goal of protecting 20% of the County's open space and developing a greenway system.

#### *Special Purpose Local Option Sales Tax (SPLOST)*

The state of Georgia permits local governments, via a referendum, to assess an additional one percent Special Purpose Local Option Sales Tax (SPLOST) to fund projects. On November 7<sup>th</sup>, 2000, Gwinnett County voters approved a four-year one percent SPLOST. The SPLOST is expected to generate between \$450 million and \$750 million for open space preservation, parks, libraries and transportation. The total SPLOST funds collected during the four-year period will, of course, depend on the overall health of the local and national economy as well as the actual number of dollars spent on taxable goods in Gwinnett County.

The allocation of the anticipated Tier 1 2001 SPLOST funding is a minimum of \$192 million for parks and open space, \$192 million for transportation, \$11 million for libraries and \$54 million for public safety facilities.

The nine-member Gwinnett County Recreation Authority developed a proposed project list for the anticipated SPLOST revenue prior to the sales tax referendum. In doing so, they worked under the assumption that the SPLOST would raise only the minimum of the expected range (\$450 million); the portion allocated to parks would then amount to \$192,375,000. This minimum funding allocation was assigned to Tier 1 active and passive recreation projects.



**Tier 1: Passive Parks – Land Acquisition**

Parkland, open space, greenways	\$55,000,000
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Total Land Acquisition - Passive Use	\$55,000,000
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**Passive Parks - Low Impact Development**

A. Regional passive parks including Little Mulberry, Settles Bridge, Yellow River/Juhan Road, McDaniel Farm, Department of Public Utilities North Plant Site and other new park sites	\$22,500,000
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B. Passive community parks including the areas of Kanaheda, Meadowcreek, Rockbridge, Peachtree Corners and other new park sites	\$7,500,000
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C. Jones Bridge Park - Phase II riverbank stabilization	\$900,000
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D. Holcomb Bridge/Chattahoochee River passive facilities including picnic pavilion, play area and trail	\$590,000
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E. Greenway development per master plan prioritization	\$2,900,000
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F. Contingency and administration	\$1,797,500
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<b>Total Passive Parks - Low Impact Development</b>	<b>\$36,187,500</b>
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**Tier 1: Active Parks - Land Acquisition**

A. Four community parks - Sugarloaf, North Snellville, Harbins and South District. Existing park expansions including Rhodes Jordan, Dacula, Pinckneyville, Bethesda, Collins Hill, Mountain Park and Lenora Park. Special purpose parks including Collins Hill, Shorty Howell Cluster/West District.	\$25,000,000
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<b>Total Land Acquisition - Active Use</b>	<b>\$25,000,000</b>
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**Active Parks – Development**

A. Mountain Park	\$8,588,000
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B. Bay Creek Park	\$6,000,000
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C. Dacula Park	\$3,118,000
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D. Shorty Howell Park	\$8,015,000
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E. Collins Hill Park	\$1,300,000
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F. George Pierce Park	\$1,700,000
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G. Lenora Park	\$6,289,000
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H. George Pierce Park	\$4,750,000
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I. Bethesda Park	\$9,160,000
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J. Bogan Park	\$2,800,000
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K. Best Friend Park	\$6,000,000
L. Hog Mountain Park	\$4,500,000
M. Rhodes Jordan Park	\$515,000
N. George Pierce and Pinckneyville Park maintenance facilities	\$392,000
Contingency/Administration	\$3,060,500
<b>Total Active Parks – Development</b>	<b>\$66,187,500</b>

#### **Cities Share Program**

Funding provided to cities for park and recreation projects	\$10,000,000
<b>Total Cities Share</b>	<b>\$10,000,000</b>

**Total Tier 1 Projects** **\$192,375,000**

#### *The Georgia Community Greenspace Program*

In April, 2000 Governor Roy Barnes signed Senate Bill 399 into law. The statute became effective on July 1, 2000 and promotes the adoption of policies and activities by Georgia communities to preserve at least 20 percent of their total acreage as permanently protected greenspace (land and water) for passive recreation and natural resource protection. The statute also provides for state grants to assist local governments in the acquisition of greenspace to be protected in perpetuity; for FY 2001, \$30 million was appropriated for the program. Local governments qualify to share in these funds if they have a minimum population of 60,000 or if they experienced minimum growth of 800 persons per year between 1990 and 1998. In FY 2001, 41 Georgia counties were eligible for the program. Funding distributions were calculated via tax-digest year 1999 residential property taxes.

On July 5, 2000 the Gwinnett County Board of Commissioners adopted a resolution detailing the County's desire to participate in the Georgia Greenspace Program. Subsequently, Gwinnett County submitted its application for the Greenspace Program to the Georgia Department of Natural Resources (October 30, 2000). The County's application included a partnership with twelve of the fifteen municipalities within the County. During the course of this study, the County applied for a second year of funding. Gwinnett County was initially allocated \$3,302,522 based on the amount of its residential property tax returned to the state of Georgia (this amount does not include the funds allocated for the municipalities within the County). Due to the increasing number of Georgia counties participating in 2002, the FY02 allocation for Gwinnett County is \$2,948,970.

#### *Impact Fees*

In theory, impact fees can provide a means of funding new greenspace, but in practice, their utility is limited in Georgia. An impact fee is a charge on new developments to pay for services associated with those developments. Although this may sound like a fair

means of paying for such costs, Georgia law says that impact fees cannot be used to provide system improvements to correct deficiencies that existed prior to the new development. Impact fees must be based on existing levels of service and in the case of greenways, the existing level of service provided by the County is small. Therefore, impact fees for greenways would generate insignificant amounts of funding. With respect to open space, portions of parkland owned by the County can be classified as open space and a level of service could be calculated. However, from a practical standpoint, the legalities surrounding the establishing of impact fees under Georgia law limit their usefulness for county governments in this state. Recent legal proceedings in Cherokee County provide insight into the difficulty of establishing a system that the courts will uphold.

The court held that Cherokee County violated due process and equal protection in the application of their impact fee ordinance. Residents of the incorporated cities of Canton and Woodstock were excluded from the service area defined by Cherokee's comprehensive plan for development impact fees, and therefore paid no impact fees. The court found that with respect to transportation services, parks and recreation, and libraries, the city residents did not pay their share of the costs of system improvements but benefited from the improvements in the same way as the fee-paying, non-city residents did. Thus, the payments were not proportional.

Essentially, one of the findings in the Cherokee case means that impact fees for county-wide services benefiting the residents of both incorporated and unincorporated areas must be collected across the entire county, including within cities. In Gwinnett's situation, this would require the agreement of all of the fifteen municipalities wholly or partially within the County. Such agreement would be difficult to obtain, as has already been demonstrated by the failure of such attempts in other Georgia counties, including Fayette County. Since Gwinnett has more municipalities than any other county in Georgia, it may be even more complicated here.

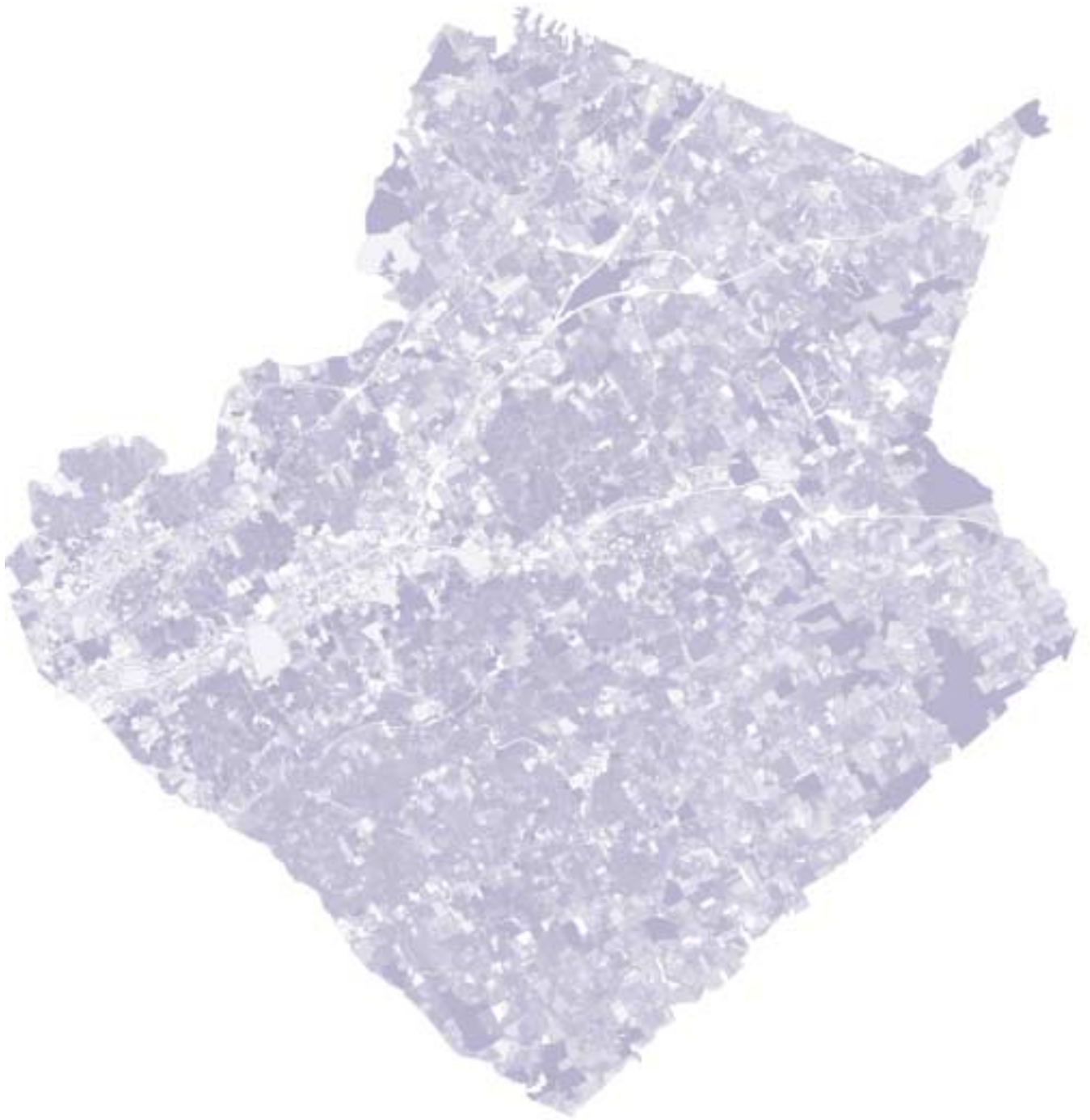
#### *Gwinnett County General Fund and Recreation Tax*

The Parks and Recreation Division dedicates General Fund and Recreation Tax Funds to operations and maintenance of the parks system. The majority of these funds come from the recreation tax which allows the County to levy up to 1 mill of property taxes for recreation. The 2001 levee of the recreation tax was 0.86 mill. With the expansion of the development of more passive parkland and greenways, levying the full mill in the future may be required.

#### *Grant Funds – See Appendix G*

In addition to the Georgia Community Greenspace Program, there are many other grant programs for open space and greenway programs. Many, however, provide limited opportunities for Gwinnett County.

# Section 5



## Section 5

# Land Availability Analysis

## 5A. Land Availability

### *Overview*

In analyzing the availability of property for open space acquisition and greenway development in the County, it is clear that the southwestern and central section, extending north to Sugar Loaf Parkway and east to Scenic Highway 124, contain the highest population densities. These areas, along with the area bounded by I-85, Highway 316, Lawrenceville Suwanee Road and the city of Lawrenceville, are the only areas with population densities exceeding three persons per acre. In the remaining areas of the County, the population densities are less than three persons per acre and, if development patterns continue at 0.3 acre lots, exceeding three persons per acre is unlikely in these areas.

The impact of mass transit, higher density developments, mixed-use developments and development patterns greater than three units per acre are most likely to occur along major transportation corridors and major activity centers. These areas have the density to support transportation alternatives that will lead to development of vertical housing stock and increased density.

To determine the availability of open space in Gwinnett, the County was divided into thirteen areas. The thirteen areas each consist of three or four USGS 7.5-minute quadrangles joined together. To analyze the properties within each area, parcels of land were identified in the categories listed below.

#### Parcel Size:

- 0 to 20 acres
- 21 to 30 acres
- 31 to 50 acres
- 51 to 100 acres
- 101 acres and greater

#### Appraised value of structures located on the property:

- \$0.00
- \$1.00 to 100,000.00
- \$101,000.00 to 300,000.00
- \$300,001.00 and greater

In addition to looking at the size and value of structures on the properties, a matrix was developed for each area that includes the following elements:

- Connectivity potential
- Potential for conservation easements, transfer of development rights or the purchase of development rights

- 303D streams
- Other streams
- Major utility corridors
- Potential for reclamation of disturbed sites
- Historic properties
- Number of city, county and national parks
- 1990 to 2000 growth rate
- Projected growth rate (2000 – 2020)
- Current population densities

On the following pages, a “Property Characteristic Matrix” is provided for each of the thirteen areas studied. The corresponding map follows each matrix.

## Property Characteristics Matrix

Quad Name and Number #1	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		2,705				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		2				
31 to 50 ac.	x		2				
51 to 100 ac.	x		2				All properties
101 and greater		x	0				
<b>Total Parcels</b>			2,711				
<b>Connectivity potential</b>	x					x	Highly developed, limited access to utility corridors
<b>Potential to use conservation easement, TDR, PDR</b>	x					x	Few parcels remaining
<b>303d streams are located within area</b>	x						Lucky Shoals and Camp Creek
<b>Non 303a streams are located within area</b>							One large wetland tract and a few other large parcels offer highest potential
<b>Major utility corridor within area</b>		x					
<b>Wetlands</b>	x						
<b>Potential for stream corridor trail development and protection</b>						x	Site that would be converted along streams
<b>Potential for reclamation of disturbed lands</b>					x		
<b>Historic Properties</b>		x					
<b>County Parks</b>	x						2 county parks
<b>City and Federal Parks</b>		x					
<b>Average Growth Rate 1990 to 2000</b>						x	
<b>Projected Growth Rate</b>						x	
<b>Range of population density per acre</b>							2 to 4.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #2	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		15,317				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		33				
31 to 50 ac.	x		23				
51 to 100 ac.	x		17				All properties
101 and greater	x		7				
<b>Total Parcels</b>			15,397				
<b>Connectivity potential</b>	x			x			Utility corridors and sections of Yellow River
<b>Potential to use conservation easement, TDR, PDR</b>	x				x		
<b>303d streams are located within area</b>	x						Norris Lake area and Yellow River, balance of area highly developed
<b>Non 303d streams are located within area</b>	x						Watson Creek
<b>Major utility corridor within area</b>	x						
<b>Wetlands</b>	x						
<b>Potential for stream corridor trail development and protection</b>						x	Sections of Big Haynes Creek
<b>Potential for reclamation of disturbed lands</b>						x	
<b>Historic Properties</b>	x						
<b>County Parks</b>	x						6 county parks
<b>City and Federal Parks</b>	x						1 city park
<b>Average Growth Rate 1990 to 2000</b>						x	
<b>Projected Growth Rate</b>						x	
<b>Range of population density per acre</b>							1 to 3.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #3	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		4,554				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		39				
31 to 50 ac.	x		35				
51 to 100 ac.	x		28				All properties
101 and greater	x		11				
<b>Total Parcels</b>			4,667				
<b>Connectivity potential</b>	x			x			Utility corridors
<b>Potential to use conservation easement, TDR, PDR</b>	x						Large farms and stream corridors
<b>303d streams are located within area</b>	x						Big Haynes Creek
<b>Non 303d streams are located within area</b>	x						Sections of Bay Creek
<b>Major utility corridor within area</b>	x						
<b>Wetlands</b>	x						
<b>Potential for stream corridor trail development and protection</b>	x				x		Section of Brushy Fork and Bay Creeks
<b>Potential for reclamation of disturbed lands</b>		x				x	
<b>Historic Properties</b>		x					
<b>County Parks</b>	x						1 county park
<b>City and Federal Parks</b>		x					
<b>Average Growth Rate 1990 to 2000</b>						x	
<b>Projected Growth Rate</b>						x	
<b>Range of population density per acre</b>							1 to 3.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #4	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		1,136				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		2				
31 to 50 ac.	x		3				
51 to 100 ac.	x		4				All properties
101 and greater		x	0				
<b>Total Parcels</b>			1,145				
<b>Connectivity potential</b>	x			x			Chattahoochee River and utility corridor
<b>Potential to use conservation easement, TDR, PDR</b>	x						Chattahoochee River
<b>303d streams are located within area</b>	x						Crooked Creek and Chattahoochee River
<b>Non 303d streams are located within area</b>		x					
<b>Major utility corridor within area</b>	x						
<b>Wetlands</b>	x						
<b>Potential for stream corridor trail development and protection</b>	x					x	Chattahoochee River
<b>Potential for reclamation of disturbed lands</b>	x					x	
<b>Historic Properties</b>							
<b>County Parks</b>	x						1 county park
<b>City and Federal Parks</b>		x					
<b>Average Growth Rate 1990 to 2000</b>						x	
<b>Projected Growth Rate</b>						x	
<b>Range of population density per acre</b>							1 to 8.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #5	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		24,583				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		23				
31 to 50 ac.	x		12				
51 to 100 ac.	x		18				All properties
101 and greater	x		5				
<b>Total Parcels</b>			24,641				
<b>Connectivity potential</b>	x			x			Utility corridor and Chattahoochee River corridor
<b>Potential to use conservation easement, TDR, PDR</b>	x			x			Along the Chattahoochee River and Rock Quarry
<b>303d streams are located within area</b>	x						Chattahoochee River, Shetley Bromolow, Beaver Run Creeks, No. Fork Peachtree Creek
<b>Non 303d streams are located within area</b>		x					Unnamed creeks
<b>Major utility corridor within area</b>	x						
<b>Wetlands</b>	x						
<b>Potential for stream corridor trail development and protection</b>					x		Chattahoochee River primary corridor. All others low
<b>Potential for reclamation of disturbed lands</b>				x			Rock quarry site
<b>Historic Properties</b>	x						Mechanicsville School, Norcross Historic District, Thomas Winn House
<b>County Parks</b>	x						8 county parks
<b>City and Federal Parks</b>	x						2 city parks 1 federal
<b>Average Growth Rate 1990 to 2000</b>					x		
<b>Projected Growth Rate</b>					x		
<b>Range of population density per acre</b>							0 to 5.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #6	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		22,042				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		43				
31 to 50 ac.	x		39				
51 to 100 ac.	x		28				All properties
101 and greater	x		12				
<b>Total Parcels</b>			22,164				
<b>Connectivity Potential</b>	x			x			Utility corridors, Yellow River
<b>Potential to use conservation easement, TDR, PDR</b>	x			x			Large 280 acre tract with major building
<b>303d streams are located within area</b>	x						Little Suwanee, Lee Daniel and Redland Creeks
<b>Non 303d streams are located within area</b>	x						Wolf Creek and sections of Yellow River
<b>Major utility corridor within area</b>	x						
<b>Wetlands</b>	x						
<b>Potential for stream corridor trail development and protection</b>	x				x		Section of Yellow River
<b>Potential for reclamation of disturbed lands</b>							
<b>Historic Properties</b>	x						Hudson-Nash House, Yellow River Post Office, Robert Craig Plantation
<b>County Parks</b>	x						4 county parks
<b>City and Federal Parks</b>	x						1 city park
<b>Average Growth Rate 1990 to 2000</b>					x		
<b>Projected Growth Rate</b>				x			
<b>Range of population density per acre</b>							2 to 5.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #7	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		11,491				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		60				
31 to 50 ac.	x		85				
51 to 100 ac.	x		67				All properties
101 and greater	x		27				
<b>Total Parcels</b>			11,730				
<b>Connectivity Potential</b>	x			x			Utility corridors and sections of Alcovy, Shoal and Pugh's Creek
<b>Potential to use conservation easement, TDR, PDR</b>	x			x			Large farms, high potential
<b>303d streams are located within area</b>	x						Sections of Alcovy River, Big Haynes and Redland Creek
<b>Non 303d streams are located within area</b>	x						Shoal Creek
<b>Major utility corridor within area</b>							
<b>Wetlands</b>	x						
<b>Potential for stream corridor trail development and protection</b>	x				x		Along sections of Alcovy River, Shoal and Pugh's Creek
<b>Potential for reclamation of disturbed lands</b>	x				x		One site disturbed by previous grading activity
<b>Historic Properties</b>	x						Old Seminary building, Old Gwinnett County Courthouse Clarence R. Ware House, William Terrell homeplace
<b>County Parks</b>	x						5 county parks
<b>City and Federal Parks</b>		x					
<b>Average Growth Rate 1990 to 2000</b>						x	
<b>Projected Growth Rate</b>						x	
<b>Range of population density per acre</b>							0 to 3.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #8	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		1,105				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		27				
31 to 50 ac.	x		42				
51 to 100 ac.	x		21				All properties
101 and greater	x		22				
<b>Total Parcels</b>			1,217				
<b>Connectivity potential</b>	x			x			Utility corridors, rivers and creeks
<b>Potential to use conservation easement, TDR, PDR</b>	x						Large farms, high potential for all three and along Apalachee & Alcovy Rivers, Drowning & Palm Creeks
<b>303d streams are located within area</b>	x						
<b>Non 303d streams are located within area</b>	x						Alcovy and Apalachee River
<b>Major utility corridor within area</b>	x						
<b>Wetlands</b>	x						
<b>Potential for stream corridor trail development and protection</b>	x						Along the Apalachee River
<b>Potential for reclamation of disturbed lands</b>	x						Sites that appear to have earthwork or borrow areas
<b>Historic Properties</b>		x					
<b>County Parks</b>		x					
<b>City and Federal Parks</b>		x					
<b>Average Growth Rate 1990 to 2000</b>						x	
<b>Projected Growth Rate</b>					x		
<b>Range of population density per acre</b>							0 to 0.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #9	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		1,580				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		3				
31 to 50 ac.	x		5				
51 to 100 ac.	x		2				All properties
101 and greater	x		3				
<b>Total Parcels</b>			1,593				
<b>Connectivity potential</b>	x				x		Chattahoochee River
<b>Potential to use conservation easement, TDR, PDR</b>	x						Chattahoochee River and farms along the river
<b>303d streams are located within area</b>	x						
<b>Non 303d streams are located within area</b>		x					
<b>Major utility corridor within area</b>	x						
<b>Wetlands</b>	x						
<b>Potential for stream corridor trail development and protection</b>	x				x		Chattahoochee River
<b>Potential for reclamation of disturbed lands</b>	x				x		
<b>Historic Properties</b>		x					
<b>County Parks</b>		x					
<b>City and Federal Parks</b>	x						2 federal parks
<b>Average Growth Rate 1990 to 2000</b>				x			
<b>Projected Growth Rate</b>				x			High along river properties
<b>Range of population density per acre</b>							1 to 3.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #10	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		8,944				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		67				
31 to 50 ac.	x		38				
51 to 100 ac.	x		47				All properties
101 and greater	x		18				
<b>Total Parcels</b>			9,114				
<b>Connectivity potential</b>				x			Powerline easements
<b>Potential to use conservation easement, TDR, PDR</b>	x			x			Mixed use zone district, stream corridors, lands along Chattahoochee
<b>303d streams are located within area</b>	x						Brushy Creek and Chattahoochee River
<b>Non 303d streams are located within area</b>	x						Suwanee & Ivy Creeks
<b>Major utility corridor within area</b>	x						Powerline
<b>Wetlands</b>	x						Several large areas on Suwanee Creek
<b>Potential for stream corridor trail development and protection</b>	x						Suwanee and Ivy Creeks and Chattahoochee River
<b>Potential for reclamation of disturbed lands</b>	x				x		Manufacturing sites in Old Town District and along Lawrenceville Suwanee Highway
<b>Historic Properties</b>	x						Old Town Suwanee
<b>County Parks</b>	x						4 county parks
<b>City and Federal Parks</b>	x						1 city park
<b>Average Growth Rate 1990 to 2000</b>				x			
<b>Projected Growth Rate</b>				x			
<b>Range of population density per acre</b>							0 to 3.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #11	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		8,256				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		67				
31 to 50 ac.	x		68				
51 to 100 ac.	x		50				All properties
101 and greater	x		17				
<b>Total Parcels</b>			8,458				
<b>Connectivity potential</b>	x				x		Utility corridors
<b>Potential to use conservation easement, TDR, PDR</b>	x			x			Along stream corridors and farms
<b>303d streams are located within area</b>		x					
<b>Non 303d streams are located within area</b>	x						Ivy Creek and Little Ivy Creek
<b>Major utility corridor within area</b>	x						Powerlines
<b>Wetlands</b>	x						
<b>Potential for stream corridor trail development and protection</b>	x			x			Ivy and Little Ivy Creeks
<b>Potential for reclamation of disturbed lands</b>					x		
<b>Historic Properties</b>		x					
<b>County Parks</b>	x						3 county parks
<b>City and Federal Parks</b>		x					
<b>Average Growth Rate 1990 to 2000</b>				x			
<b>Projected Growth Rate</b>				x			
<b>Range of population density per acre</b>							0 to 2.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #12	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		779				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		24				
31 to 50 ac.	x		13				
51 to 100 ac.	x		14				All properties
101 and greater	x		9				
<b>Total Parcels</b>			839				
<b>Connectivity potential</b>	x				x		Streams and corridors
<b>Potential to use conservation easement, TDR, PDR</b>	x			x			Along river and creek corridors, farm property and along golf course
<b>303d streams are located within area</b>		x					
<b>Non 303d streams are located within area</b>	x						Little Mulberry River, Wheeler Creek, Rock Creek, Duncan Creek
<b>Major utility corridor within area</b>	x						Utility line along stream corridor owned in fee simple
<b>Wetlands</b>							
<b>Potential for stream corridor trail development and protection</b>	x			x			Along Little Mulberry River, Wheeler and Rock Creeks
<b>Potential for reclamation of disturbed lands</b>							
<b>Historic Properties</b>	x						Parks, Strickland Complex, Elisha Winn House
<b>County Parks</b>		x					
<b>City and Federal Parks</b>		x					
<b>Average Growth Rate 1990 to 2000</b>				x			
<b>Projected Growth Rate</b>				x			
<b>Range of population density per acre</b>							0 to 1.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## Property Characteristics Matrix

Quad Name and Number #13	Yes	No	Number of Parcels	High	Medium	Low	Comments
<b>Parcel Sizes</b>							
0 to 20 ac.	x		1,860				Properties with improvements with less than \$100,000 appraised value
21 to 30 ac.	x		18				
31 to 50 ac.	x		17				
51 to 100 ac.	x		12				All properties
101 and greater	x		10				
<b>Total Parcels</b>			1,917				
<b>Connectivity potential</b>	x			x			
<b>Potential to use conservation easement, TDR, PDR</b>				x			Areas along Chattahoochee River and National Parks property
<b>303d streams are located within area</b>	x						Level and Richland Creeks and Chattahoochee River
<b>Non 303d streams are located within area</b>		x					Unnamed stream
<b>Major utility corridor within area</b>	x						
<b>Wetlands</b>	x						
<b>Potential for stream corridor trail development and protection</b>	x			x			Chattahoochee River, Richland and Level Creeks
<b>Potential for reclamation of disturbed lands</b>	x						Landfill site
<b>Historic Properties</b>	x						Bona Allen House, John Quincy Allen House
<b>County Parks</b>	x						1 county park
<b>City and Federal Parks</b>	x						1 federal park
<b>Average Growth Rate 1990 to 2000</b>					x		
<b>Projected Growth Rate</b>				x			
<b>Range of population density per acre</b>							0 to 1.99

Sources: Historic properties and projected growth rates from Gwinnett County 2020 Comprehensive Plan. Range of population density taken from Gwinnett County Parks & Recreation 2000 Capital Improvement Plan. Utility corridors taken from Robinson Fisher Association map titled "Gwinnett County Trail System." Growth Rates: Low Average less than 50%, Medium Average 51 to 100%, High Average greater than 100%. Building and property appraised values provided by Gwinnett County.

## General Findings:

### *Acquisition Potential*

- The largest number of parcels is in the 0 to 20-acre category.
- There are 104,352 parcels in the 0 to 20-acre category with improvements under \$100,000.00.
- There are 408 parcels in the 21 to 30-acre category with improvements under \$100,000.00.
- There are 392 parcels in the 30 to 50-acre category with improvements under \$100,000.00.
- There are 311 parcels in the 51 to 100-acre category with varying property values.
- There are 141 parcels in the 101-acre and larger category with varying property values.
- There are numerous 50-acre properties remaining along the Chattahoochee River, east of Scenic Highway 124 and north of Lawrenceville-Suwanee Highway. A limited number of these properties are still zoned agricultural.
- Properties remain in the southwestern section of the County that, when grouped with other open properties, can provide open space relief in high-density areas.
- Large open properties along the I-85 corridor, and in the area of the I-85 and Highway 316 split, are limited.

### *Greenway and Linear Open Space Corridors*

- The Chattahoochee, Alcovy and Apalachee River corridors have the highest potential for greenway development.
- Sections of the Yellow River and numerous creeks have high potential for greenway development while other sections cut through heavily developed residential communities.
- Utility corridors offer another opportunity for connecting alternatives. The majority fall into one of four major categories:

Gas Pipelines	approximately 85 miles
Electric Transmission Lines	approximately 321 miles
Water	limited to a few off road easements
Sewer lines	limited to large collector lines

Portions of these major utility corridors have high potential for greenway development while other sections cut through heavily developed residential communities and offer moderate potential. If you look at the long-range potential, it would be high for most of the corridors. There are two factors that can limit the effectiveness of utilization of the utility corridors for greenway development. In highly-developed neighborhoods, each residential property owner will have to

agree to the easement, as the utility easements do not address public access for trails in the original easement agreement. The second limiting factor is overcoming the public perception that greenways will have a negative impact on the surrounding properties and increase crime in the neighborhoods. In the early development period, these factors will lead to resistance to the use of some corridors for greenways.

- All of the non-303D rivers are located in the low-density areas of the County.
- Potential for greenway corridors beyond those listed in the Gwinnett County Comprehensive Plan and the Comprehensive Transportation Plan exist in the northern and eastern sections of the County.
- Open space and forested areas still remain along many roads east of Scenic Highway 124 and roads north of Highway 316 and east of Highway 20 offer trail opportunities.

## 5B. Summary of Land Availability Analysis

### *Overview*

As detailed in Section 2B, *Existing Protected Open Space and Open Space Planning Programs, Summary of Open Space and Park Lands in Gwinnett County*, Gwinnett County has conducted an aggressive acquisition campaign. Over 3,595 acres of passive parkland and open space have been purchased. This is the most open space protected by any city or county agency in the Atlanta MSA during past two years. The acquisitions have been distributed throughout the County and include areas of high populations densities and developing areas with relatively low population densities. The acquisition strategy is providing passive parkland in areas that were identified as being underserved by the Gwinnett County Parks and Recreation 2000 Capital Improvements Plan. Acquisitions have also been made in areas of growth identified in the Gwinnett County Comprehensive Plan. This plan also includes approved greenway routes along many of the County's major stream corridors. This balanced approach should continue into the future as the County continues to seek the protection of over 50,000 acres of open space.

In addition to considering the two planning documents aforementioned, there are other factors the County should consider as evaluation factors for future open space and greenway corridor acquisitions. In Section 2C, *Targeting Preservation Efforts*, targets for preservation are identified. These include:

- Streams and Floodplains
- High-Quality Watersheds
- Parkland in Urbanized Areas
- Restoration of Stream Banks in Urbanized Areas
- Prime Wildlife Habitat
- Distribution of Greenspace

These factors, along with population densities and geographic distribution, will allow the County to broaden the evaluation process and the desired objectives of the land acquisition process. The target factors were used to guide the development of property evaluation forms that are included in Appendix F, and will allow the County to compare and contrast the multiple objective benefits of properties considered for acquisition. This evaluation form will allow staff to review potential sites quickly and provide the County Commissioners with information on environmental and site factors. The cost of the sites can then be evaluated along with the environmental, transportation, and recreation benefits of each site.

Targeting factors outlined in previous studies are also included in the evaluation forms and should be used in determining property acquisitions. They include:

- Providing additional parkland in areas identified in previous studies as being underserved

- Protecting historic structures and landscapes
- Protecting scenic views
- Protecting watershed recharge areas
- Protecting natural environments with endangered plant and animal species
- Promoting transportation options
- Promoting improved health and fitness through improved walking and bicycling opportunities

## **Acquisition Recommendations**

### *Stream Corridor Acquisition for Greenway Development and Open Space Protection*

Stream corridor acquisition covers stream corridors located throughout the County. The acquisition of properties within these corridors will achieve many of the specific target goals and provide new recreation opportunities that are not currently provided by the County in the form of an interconnected greenway system. Within the framework of the greenway system there are several stream corridors that should be the highest priority for acquisition. River corridors in the high priority list include Yellow, Alcovy, Apalachee and Chattahoochee Rivers. Creeks included in the high priority list include Big Haynes, Brushy, Ivy, No Business and Suwanee. The acquisition of properties along the stream corridors will serve both local and regional needs as the trails in some locations have the potential to connect to other county and regional systems, and the water quality benefits will be shared with all downstream communities.

Most of these corridors are included in the Gwinnett County 2020 Comprehensive Plan discussion on proposed greenways and bikeways. Because these stream corridor greenways are part of the adopted plan, they would be high priorities for acquisition.

### *Chattahoochee River Corridor*

While listed in the stream corridor acquisition for greenway development and open space protection category as one of the high priority river corridors, the Chattahoochee River Corridor is part of a much larger regional trail network. Within this corridor, properties controlled by municipal, county, state and federal agencies will be involved in the acquisition of property and the development of various recreation, greenway and open space facilities. The National Park Service has taken the lead in the acquisition of properties for the regional trail system. Therefore, the primary areas of concern for the County will be water quality, stormwater control and public access to the river and greenway system. The County will need to target properties within the corridor that meet these two goals as well as the overall target goals for the open space program.

### *Parks and Recreation 2000 Capital Improvements Plan*

In the Parks and Recreation 2000 Capital Improvements Plan, areas were identified as having service gaps between existing park facilities. These gaps were primarily identified based on a two mile radius service area for existing parks. In addition to this

traditional approach to serving community park needs, the plan identified alternative land acquisition strategies including “*cluster community parks*” resulting from acquisition of several small tracts in close proximity to one another or near existing parks. The plan recommended the purchase of land to expand existing facilities and the development of smaller passive community parks. In addition, greenway corridors to connect existing park facilities and the acquisition of smaller tracts “...*for special uses such as soccer complexes, open space or aquatic facilities,*” was also recommended. These recommendations were based primarily on the need to improve active recreation opportunities. However, the need to augment active facilities with passive parkland and open space was recognized in the study, and was reflected in the land acquisition strategy recommendations.

Areas that were targeted in Tier 1 of the Parks & Recreation 2000 Capital Improvements Plan for new parks and/or park facilities were:

- Sugarloaf / Kanoheda Area (community park);
- N. Snellville Area (community park);
- West District - including Beaver Ruin area, Rockbridge area, Meadowcreek area, and Peachtree Corners area;
- Harbins Area (community park);
- Collins Hill Area;
- South District - off Hwy. 124 (community park);
- Expansions to existing parks including Rhodes Jordan Park; Dacula Park; and Pinckneyville Park);
- Open space and greenways acquisitions.

A new concept introduced in the plan was a small community park of 20 acres that would serve primarily passive, unorganized recreation pursuits. These parks would serve as alternative park sites to the larger community parks. Land requirements would be less, making them more feasible in the areas of high population densities where few large undeveloped tracts of land remain. The concept for these smaller parks is consistent with many of the targets for preservation identified in this master plan.

### *Scenic and Historic Properties*

In Section 6 of this master plan we have detailed historic and scenic properties from the Gwinnett County 2020 Comprehensive Plan. The important historical and aesthetic benefits that these properties add to the fabric of the County makes them targets for acquisition. Efforts to protect historic and scenic sites, as well as sites with significant cultural resources, should be high priorities for acquisition throughout the County.

### *Redevelopment Areas*

In the highly developed sections of the County, the number of undeveloped sites is limited. To provide open space in these areas, redevelopment of brownfield and other developed sites is an option. Brownfields are defined as, “a piece of industrial or commercial property that is abandoned or underused and often environmentally contaminated, especially one considered as a potential site for redevelopment,” by the

American Heritage Dictionary of the English Language, Fourth Edition, copyright 2000. A brownfield site, or any other property suitable for redevelopment that would accomplish the targets of preservation, should be considered for acquisition and redevelopment.

Redevelopment sites provide opportunities to take properties that are not in compliance with the current storm water and water quality standards and redevelop them in such a manner as to provide stream bank improvements, increase wildlife habitat, provide community greenway connections and increase open space throughout the County. The redevelopment of Brownfield sites can provide an opportunity to acquire larger tracts of land in highly developed sections of the County, along with tracts that are in the 20 acre size category. Tracts 20 acres and larger would meet the size requirements for public access, but other smaller sites in floodplain areas should also be considered for acquisition without public access. These smaller tracts can have a positive impact on water quality and flood control without public access. They can also provide green space for visual interest in areas that are highly developed with little natural vegetation remaining. Revegetating these areas with native plants can improve views for nearby residents and motorists alike.

Another important benefit of redevelopment is the reduction in the loss of undeveloped greenspace. If open space and parkland needs can be met through redevelopment, less impact on remaining green space will occur. The redevelopment of brownfield sites opens up opportunities for grant funding. The Small Business Liability Relief and Brownfield Revitalization Act, P.L. 107-118, signed by President Bush on January 11, 2002 called for funding of \$250 million a year for cleanup of brownfield sites. This increase in funding, along with modification to EPA's role of enforcement, was provided with the intent of encouraging redevelopment of more brownfield properties. A summary of this act is provided in Appendix H.

### *Open Space Needs*

The process of analyzing open space needs in the County has included a review of existing planning documents, public input, property availability analysis, existing and projected population densities and the establishment of open space preservation targets. After completing the analysis, the following areas within Gwinnett County were identified as having the most significant open space needs.

#### **Zone 1**

Starting at the Chattahoochee River, take Cumming Highway east to the intersection with Suwanee Dam Road. Turn south onto Suwanee Dam Road, and travel eastward to the intersection with West Price Road. Veer left on West Price Road. Go east on Woodward Mill Road and follow it to Interstate 985. Follow Interstate 985 northeast to the Hall County line. Traveling northwest along the County line, the boundary intersects the Chattahoochee River. At this point, the boundary follows the Chattahoochee River south back to the starting point.

Zone 1 is served by federal properties near Lake Sidney Lanier and the Chattahoochee River but has no County-owned open space or parkland. Numerous large tracts over 100 acres still remain in this zone along with many tracts under 100 acres. The larger sites are concentrated in the northern portion of zone 1 and near the Chattahoochee River. Many of these tracts are undeveloped and others in the 100 plus and 51 to 100 acre categories have improvements in the \$1 to \$100,000 cost range. Zone 1 experienced a growth rate of 118% during the last decade. With this level of growth, the large tracts will be prime targets for development. The current population densities are 0 to 2 people per acre, but will continue to increase with the rapid population growth. Acquisitions contiguous to federal parkland, the Chattahoochee River and along smaller streams will provide open space and greenway opportunities throughout zone 1. Recommended acquisitions will also provide transportation opportunities for residents of this zone and provide vital wildlife habitat and corridors connecting to the large federal parks.

## **Zone 2**

Starting at the Chattahoochee River, take E. Jones Bridge Road southeast to the intersection with Peachtree Street. Go south on Peachtree Street to the intersection with Beaver Ruin Road. Go west on Beaver Ruin Road and follow it to Indian Trail Road. Turn right onto Indian Trail Road and follow it to Interstate 85. Follow Interstate 85 southwest to the County line. Traveling northwest along the County line, the boundary intersects the Chattahoochee River. At this point, the boundary follows the Chattahoochee River north to the starting point.

Zone 2 contains some the highest and lowest population densities in the County due to the mix of residential and commercial development within the zone. The population densities range from a high of 10 to 12 to 0 to 2 people per acre in the areas with more commercial development. Growth rates in zone 2 have stabilized as it has approached build out over the last decade. The lowest growth rate in zone 2 was 7.8% and the highest was 84%. Zone 2's western boundary is formed by the Chattahoochee River, but unlike more central and northern sections of the County, lacks large federal park holdings along the river.

Currently, the only County-owned parkland along the river in zone 2 is located at Jones Bridge Park and Pinckneyville Arts Center. Both of these sites provide public access to the river for water sports and passive recreation. As the County's greenway system develops, a major trailhead will be needed in zone 2 to serve as a destination for trail users who start at Settlers Bridge Park to the northwest. If property can be found to expand Jones Bridge Park, this would improve access to the river at this heavily used facility. Clustering of property near Jones Bridge Park is another option for this park.

Analysis of the available undeveloped tracts in zone 2 revealed three vacant tracts in the 51 to 100-acre category that were undeveloped. Two of the tracts are contiguous to each other and the third is contiguous with property already owned by the County. The majority of tracts over 30 acres are located along the river. Redevelopment opportunities exist in this district, with numerous large tracts serving nonresidential uses at this time.

### **Zone 3**

Starting at the DeKalb County line, take Lawrenceville Highway northeast to the intersection with Killian Hill Road. Go east on Killian Hill Road and follow it to the intersection with Stone Mountain Highway. Turn south on Stone Mountain Highway, and follow it to the DeKalb County line. At this point, the boundary follows the County line back to the starting point.

Zone 3 is a highly developed area with population densities of 2.01 to 4 people per acre. Growth rates in this area have been very stable over the past decade with growth ranging from .8% to 38%. This area is dominated by established single-family residential developments. Mountain Park and Harmony Grove Park currently serve this zone. A new park will house the Mountain Park Aquatic Center and Activity Building. While this zone is home to three parks, they are all small and devoted primarily to active recreation activities. This zone is in need of passive parks and open space.

The number of large tracts is very limited. Clustering acquisition of smaller tracts and stream corridors may be the best option for providing open space in zone 3. There are numerous parcels under 20 acres that, if clustered, would create parks or open space in the 15 to 30 acre range and a few parcels over 20 that clustered with smaller surrounding properties could create parks or open space in the 25 to 50 acre range. Property adjacent to exiting parks should also be considered for purchase to offer more passive areas in existing community parks.

### **Zone 4**

Starting at the Chattahoochee River, take McGinnis Ferry Road east to Interstate 85. Follow Interstate 85 northeast to Lawrenceville-Suwanee Highway. Travel south on Lawrenceville-Suwanee Highway until you get to State Route 316. Travel west on State Route 316 until reaching the Interstate 85 split. Take Interstate 85 north to Pruett Road. Travel north on Pruett Road until intersecting with Old Peachtree Road. Travel in a northerly arc, passing just to the east of Suwanee Creek Unit, until reaching the Chattahoochee River. At this point, the boundary follows the Chattahoochee River back to the starting point.

East of I-85 numerous parcels from under 20 acres to 100 acres in size remain undeveloped. Several parcels have improvements valued at \$1 to \$100,000, and many are completely undeveloped. Most remain in low density zoning classifications and one tract of approximately 90 acres is zoned agriculture. These

tracts are just north of the Discover Mills mall and within a LCI study area. This zone currently has population densities of 3 to 3.99 people per acre and will continue to increase with additional development. There is a major north-south power line and sewer easement, which can provide alternative access routes for pedestrians and bicyclists.

Zone 4 is outside the community park service area of Collins Hill Park and the proposed parks at the Kanoheda and McDaniel Farm Park sites. The only parkland in this zone is the land donated by the Discover Mills mall. Acquisition and protection in this zone should be a high priority.

West of I-85, there are numerous parcels under 50 acres and a few tracts of over 100 acres that remain undeveloped. Several parcels have improvement valued at \$1 to \$100,000. These parcels may be suitable for park development with the removal of the existing improvements. This is one of the fastest growing sections of the County, with a growth rate of over 400% between 1990 and 2000. Zone 4 currently has population densities of 0 to 2 people per acre and will continue to increase with the rapid rate of growth it is currently experiencing. There is a north-south bikeway proposed along Peachtree Industrial Boulevard and the Suwanee Creek Greenway connects with the Chattahoochee River Greenway within this district. Connectivity among park and open space sites will be high in this zone with the development of proposed greenways and bikeway facilities. Acquisition for the implementation of bikeway and greenway facilities should be a high priority in this district.

## **Zone 5**

Starting at the intersection of Interstate 85 and Jimmy Carter Boulevard, take Interstate 85 north to Indian Trail Road. Go north on Indian Trail Road to Beaver Ruin Road. Follow Beaver Ruin Road northeast to Satellite Boulevard, continuing northeast to Pleasant Hill Road. Following Pleasant Hill Road southeast to Interstate 85. Take Interstate 85 north to State Route 316. Follow State Route 316 to Sugarloaf Parkway. Follow Sugarloaf Parkway southeast to Lawrenceville Highway. Follow Lawrenceville Highway southwest to Rockbridge Road and then back to Jimmy Carter Boulevard. At this point, the boundary follows Jimmy Carter Boulevard west back to the starting point.

Along the western boundary and running north following I-85, starting at Jimmy Carter Boulevard population densities range from 6 to 8 and to a low of 2.01 to 4 people per acre. Population growth is highest in the northern portion of zone 5, south of Highway 316. Recent acquisition of the 25.4-acre Kanoheda site will provide much needed open space in this region. Several existing community parks are located outside zone 5, requiring longer drive times for active park amenities for residents of this area of the County. Several sites of 20 to 30-acres and 31 to 50-acres remain undeveloped in zone 5, but properties over this size are limited. The undeveloped tracts over 50 acres are located primarily near streams and are large flood plain properties. Potential redevelopment sites are

located throughout the district with an active stone quarry offering the largest single redevelopment opportunity in zone 5. For the future, there is also a large undeveloped buffer around the quarry.

Many of the vacant parcels include stream corridors, which may limit development potential. There are several open tracts, or tracts with limited building improvements, that if acquired and connected would exceed 100-acres. This would be consistent with the Parks and Recreation Department policy for clustering park land acquisition to meet passive park needs.

## **Zone 6**

Starting at the intersection of Five Forks Trickum Road and Killian Hill Road, take Five Forks Trickum Road northeast to the intersection with Ronald Reagan Parkway. Go east on Ronald Reagan Parkway to Webb Gin House Road. Go northeast on Webb Gin House Road, to Grayson Highway. Go east on Grayson Highway to Cooper Road. Go south on Cooper Road to Rosebud Drive. Take Rosebud Drive south to Lenora Road. Go west, and follow the road through several name changes until it becomes Killian Hill Road. At this point, the boundary follows Killian Hill Drive back to Five Forks Trickum Road.

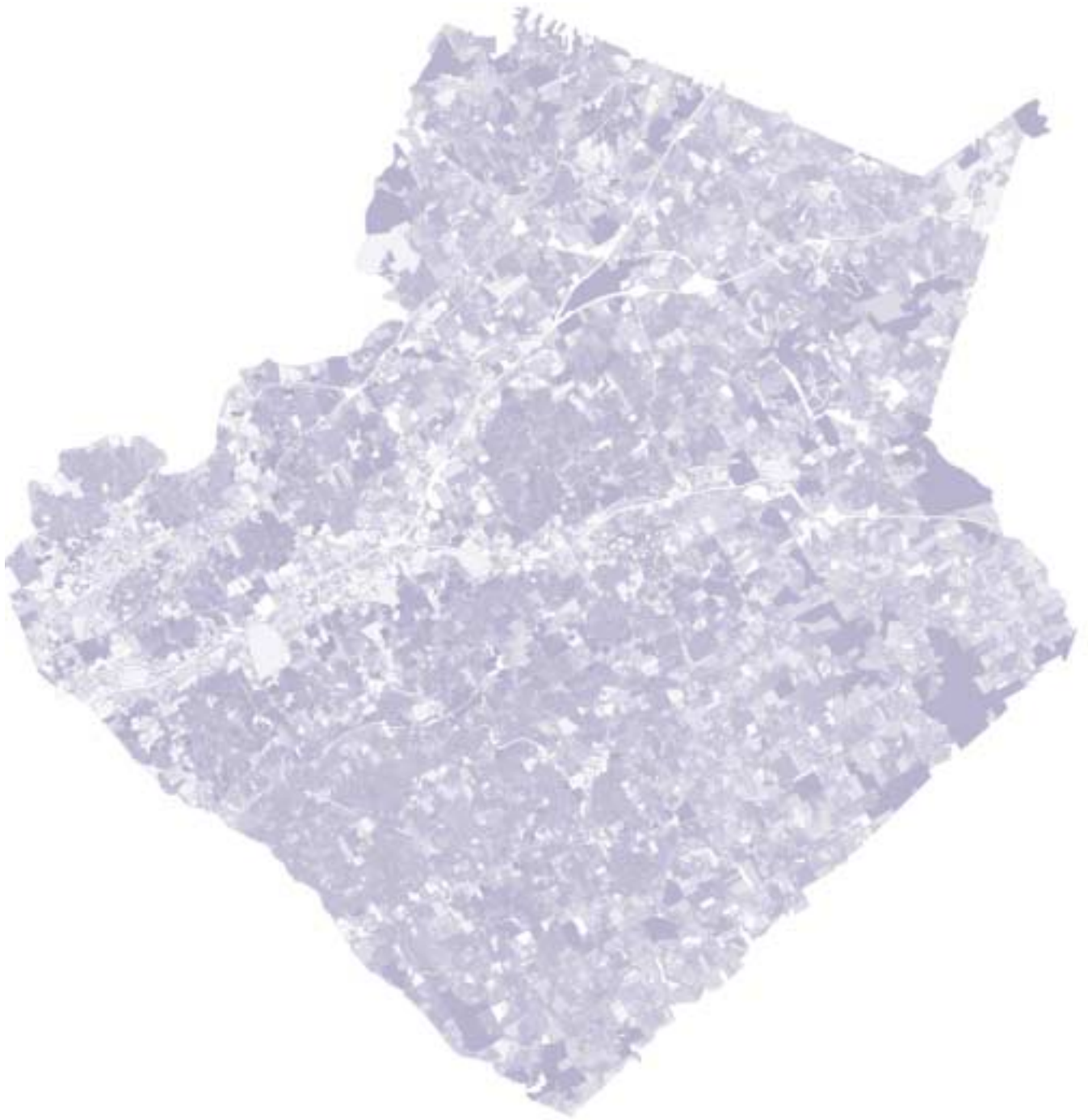
Zone 6 covers large portions west of the communities of Snellville and Grayson. Each of these communities contains small tracts of municipal parkland, but no County parkland is located within zone 6. Population densities in zone 6 range from 0 to 2 people per acre to a high of 2.01 to 4 people per acre. Population growth over the last decade ranged from a low of 15.4% to a high of 140%. The high growth section of zone 6 contains the highest number of large undeveloped tracts of land.

The potential to locate open space tracts is currently good but will diminish as the population continues to grow in zone 6. The potential for greenway and open space corridors is high, but not as high as other sections of the County. There is good availability of large tracts in the northeastern section of zone 6 with tracts of 50 to 100 acres dispersed throughout. Tracts of 20 to 50 acres are plentiful throughout zone 6. Open space stream corridors along Big Haynes Creek and its tributary streams offer the highest potential for greenway development.

### *Acquisition Criteria*

See Appendix F for a suggested property evaluation process that should be considered for use in determining which specific parcels of land are included within the Gwinnett County Open Space and Greenway Plan.

# Section 6



## **Gwinnett County Greenway System Plan**

### **6A. Overview**

This section describes a program for creating and managing a system of greenways for Gwinnett County. Although part of the Open Space and Greenway Master Plan, it is also meant to serve as a stand-alone document that can be a guide for the developer of the greenway system. As such, some of the contents duplicate data found in other sections of the master plan report.

### **6B. History of Greenways in Gwinnett County**

The concept of developing a greenway system in Gwinnett County is not a new idea. As early as 1988, the Gwinnett County Department of Human Services commissioned a master plan for a trail system. The plan, known as the Gwinnett County Trail System, was developed by Robinson Fisher Associates, Inc. The plan's executive summary discusses the potential for developing over 200 miles of trails via existing utility corridors, gas pipelines, water and sewer easements, and natural corridors. The proposed system would have provided a trail within five miles by road of all homes, schools, workplaces and shopping areas in the County, and direct access to all major parks, activity centers and natural areas.

#### *Adopted Routes*

Following the development of this plan and an internal study by the County, a series of stream based corridors were identified for greenway trails and overland routes were developed for bicycle corridors. These routes were adopted as in the Gwinnett County Comprehensive Plan and are still part of the adopted plan for the County. These routes have been used in the development of subsequent master plan studies and transportation planning documents. (See Adopted County-wide Greenway and Bicycle Routes Map.)

#### *Further Planning Studies Developed by the County*

In 1995, the Gwinnett County Department of Planning and Development drafted a report entitled *Pedestrian, Bicycle and Greenways Plan for Gwinnett County, Third Draft*. The goal of the plan was, "To contribute to the overall quality of life and economic well being of Gwinnett County by developing and improving opportunities for walking and cycling." The plan recommends a "multifaceted" or comprehensive approach to developing an interconnected system of walkways, bikeways and greenways. Based on citizen input and research, the 1995 plan concluded that:

- Walking and bicycling play a significant role in an intermodal transportation system by reducing traffic congestion, connecting to transit park and ride lots, and improving air quality.
- Walking and bicycling can replace a short trip that would usually be made by automobile.

- Improving opportunities for walking and bicycling throughout the County reaps multiple "quality-of-life" benefits including health, economic, increases in tourism and environmental.
- Improving opportunities for walking and bicycling can help give Gwinnett County a competitive edge over other metropolitan areas in attracting and maintaining businesses.
- Walking is the most popular recreational activity of Gwinnett residents.
- Greenways are one of the most desired recreational facilities; bicycle trails rank second.
- Gwinnett citizens want to walk and bicycle from home.
- Gwinnett County sidewalk policies and regulations need to be improved to satisfy ADA regulations and be comparable to many other cities and neighboring counties.
- Bicycle lanes should be considered as part of road improvement projects. The construction cost of adding bicycle lanes to road projects is estimated at 5 to 8% of total project cost and significantly benefits motorists by providing room for disabled vehicles, service and delivery vehicles.

(See Proposed County-wide Greenway and Bikeway Routes from 1988 and 1995 map.)

#### *The Greenway Master Planning Process*

As part of this master planning effort, public input was solicited through a series of twelve public meetings, special interest group meetings and through the formation of a nine person Citizens' Steering Committee. The input received through these meetings resulted in many of the same findings and issues that were raised in the County's two previous greenway and trails planning efforts. The top five priorities for a greenspace program identified by the committee were:

1. Develop incentives for preservation of open space
2. Change zoning regulations to facilitate open space preservation
3. Link open space to neighborhoods, schools and public facilities
4. Protect river and stream corridors
5. Establish criteria for open space acquisition

When the Citizens' Steering Committee was asked to rank by preference activities listed in the Georgia Greenspace Program as permitted activities in open space, the top five choices were as follows:

1. Running
2. Open play
3. Picnicking
4. Biking
5. Hiking

The Citizens' Steering Committee discussed the level of public access that should be provided in open space properties. The committee expressed that it is not a requirement for expending public funds that all properties have public access. While it is desirable to allow public access to the majority of the open space, areas that should have limited access were identified as follows:

- Habitat for threatened or very sensitive species
- Fragile ecosystems
- Areas needed for water resource protection
- Archeological and historical sites that would be negatively impacted by excess public access
- Areas where habitat restoration is needed
- Stream corridors that are adjacent to existing subdivisions
- Farm land that is protected for the purpose of visual open space
- Wetland banks

Common themes frequently expressed by the public were the need for more greenspace acquisition, the need for land protection and the linkage of open space. A county-wide greenway system would help to address these issues, especially the concept of linkage. A greenway system would provide buffers from development along streams and around sensitive ecosystems and wildlife habitat. At the same time, it would provide opportunities for alternative transportation routes and connectivity among desired properties. Walking, biking and open play, which have been ranked high in previous studies, are still high priority activities that citizens want in the County.

It is clear that the development of a multi-objective greenway system should be a high priority. It is a missing element in the overall transportation and recreation services provided by Gwinnett County. In addition, a greenway system provides open space and water quality benefits that are also important to maintaining the high quality of life and economic prosperity of Gwinnett County.

#### *Greenway System Development*

Two elements critical to the success of building a greenway system include public education and coordination and cooperation among all the County agencies. To build support, the benefits of greenways for transportation, water quality, plant and animal habitat, open space and recreation must be demonstrated to the public. A key selling point is the positive effect that greenways have on neighboring property values. It may also be necessary to dispel myths that public trails will increase crime, reduce property values and bring undesirable elements into one's neighborhood.

A multi-agency approach to development will be required. The Department of Transportation has already included comprehensive system components for bicycle and sidewalk elements into its current Comprehensive Transportation Plan and has identified several off road multi-use paths. The engineering and implementation of

these routes should be coordinated with the additional routes proposed in this master plan. An interagency committee should be formed to prioritize all the greenway and pedestrian projects in order to begin to complete links among the County's resources in high priority zones, and then move throughout the County in an organized manner.

(See Proposed County-wide Greenway and Bicycle Routes Map.)

Throughout the implementation of the greenway system plan, the multi-agency committee should work together to update all department comprehensive plans to reflect system improvements. Regulations, ordinances and design standards for the greenway system should be developed by the committee to ensure consistency throughout the system. The committee should take the lead in working with allied staff in the municipalities to implement the same design standards throughout the County. As with all multi-agency efforts, there needs to be a lead agency. It is recommended that the lead agency be the Department of Community Services, Division of Parks and Recreation. It is also recommended that a staff person with Parks and Recreation serve as the Open Space Coordinator and work with other staff in the County and citizen groups who are interested in greenways.

The current role of the Recreation Authority should be expanded to include open space and greenways along with County park and recreation facilities. The Recreation Authority would serve as a conduit for public input on open space and greenways, and would aid the Parks and Recreation staff in making decisions pertaining to the design and implementation of greenway and open space facilities. The Recreation Authority should have the option of forming a subcommittee with representatives from the Recreation Authority and other interested citizens who want to focus on open space and greenway issues.

### *Greenway Funding*

The County currently has \$55 million in land acquisition funds for open space, \$22.5 million for acquisition and development of passive parkland and \$2.9 million in greenway development. The land purchased with these funds will enable the County to begin developing a greenway system to connect major open spaces and parks. The \$2.9 million that is currently budgeted for greenway development is a good start. However, the cost of developing a trail system throughout the County will cost many millions of dollars for facility and land acquisition outside of the large County-owned tracts.

Greenway development costs can vary widely depending on the terrain, number of road and stream crossings, and the nature of the soils where the trail will be constructed. Costs for individual trail sections can be as low as \$200,000 per mile and as high as \$1 million per mile. To begin to develop a system that meets the community's needs, a minimum of \$30 million should be spent on constructing multi-use off road

greenways over a ten-year period. In addition to the construction cost, funds will need to be appropriated for operations and maintenance of the greenways and open space.

#### *Summary of Development Actions*

- Educate the public on community benefits
- Update comprehensive plans, regulations and ordinances to reflect greenway development needs throughout the County
- Coordinate the engineering and implementation plans for the system
- Organize an interagency committee among the County departments
- Appoint the Department of Community Services, Division of Parks and Recreation as the lead agency on greenways and open space
- Assign a staff member within Parks and Recreation as the Open Space Coordinator
- Expand the role of the Recreation Authority to oversee open space and greenway projects
- Increase funding for implementation and operation of an Open Space and Greenway System

#### *Locating Greenways*

In planning the location of greenways, it is important to consider both connectivity of population centers and the natural features of the land. Many greenways are built in the riparian zone of streams and rivers because they are natural routes through the landscape, they contain an inherently attractive feature (the waterway itself), and they are often unsuitable for development due to flooding. Protecting wide riparian zones also preserves water quality and wildlife habitat, as described elsewhere in this report. It is recommended that floodplains and riparian zones be targets for acquisition in the near future, even if they are not used in the short term for public access greenways. Once these areas are under County ownership, they can be retrofitted with trails in the future.

Greenways should be designed to take advantage of other natural features of Gwinnett County. Additional information on the County's natural environment is provided in Section 2 of the Open Space and Greenway Master Plan.

## 6C. Design Standards

### *Pedestrian Users*

Walkers typically walk for exercise and recreation and often for utilitarian reasons, such as errands. This is especially true in downtown areas and dense residential/commercial districts. "Evidence indicates that walking among urban residents living in high density districts is far more prevalent than among suburbanites, and that a much higher proportion of short trips (less than one mile) are walked in central business districts than in the suburbs. It should be noted, however, that suburbs and outlying areas often lack sidewalks or trails... indications are that the relative convenience of other modes [of transportation] affects reliance on walking."<sup>1</sup>

The major impediments to walking as a means of transportation are universally considered to be distance and travel time. Walkers can typically cover three or four miles per hour at a moderate pace<sup>2</sup>, however, evidence indicates that walking trips are predominantly short. Recent studies indicate that 80% of walking trips are less than one mile and 94% are less than two miles.<sup>3</sup> Additionally, data indicates that specific physical aspects of the pedestrian environment affect an individual's choice to walk:

- *Sidewalks.* Suburban neighborhoods and areas on the fringe of cities frequently lack sidewalks and people walk less often in those situations. However, many suburban trips, such as shopping for a few groceries, enjoying a restaurant or theater, or a trip to the local bookstore, are short enough to be easily manageable on foot. There is evidence, although not comprehensive, that the limited availability and poor quality of sidewalks inhibits such uses.

In designing a sidewalk, the range of users must be considered. A child's awareness of sounds and where they come from, as well as peripheral vision, focus and concentration levels, are not fully developed until after the age of eight. Senior citizens typically do not have the sight, speed and reaction time abilities of mobile and alert younger adults. Facilities must be designed to ensure accessibility and safety for children, seniors and the disabled.<sup>4</sup>

- *Traffic Signals and Pedestrian Crossings.* The absence of traffic signals and striped pedestrian crossings, or complete vertical separation provided by pedestrian overpasses on highly traveled roads, impedes pedestrians. When coupled with wide roads and high-speed travel, this can make it impossible to safely cross the street, especially for children and older or disabled individuals. These issues are not insignificant—6,000 pedestrians are killed every year in this country (58% are

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<sup>1</sup> U.S. Department of Transportation, Federal Highway Administration. National Bicycling and Walking Study. Case Study Number 1: Reasons Why Bicycling and Walking Are Not Being Used More Extensively as Travel Modes. (Federal Highway Administration Publication Number FHWA-PD-92-041, 1994) 2

<sup>2</sup> Ibid., 12

<sup>3</sup> Ibid., 12

<sup>4</sup> North Central Texas Council of Governments. Bicycle and Pedestrian Facilities Planning and Design Guidelines. (Arlington, Texas, 1995) 1-11

working adults, 23% are age 65 or older and 19% are children under the age of 19), and 90,000 are injured. These injuries and fatalities cost \$20 billion each year.<sup>5</sup>

- *Street Lighting.* In some neighborhoods, particularly very urban neighborhoods, crime or the perception of potential crime, is a real concern for walkers. Improved lighting is considered one of the most effective ways to reduce these fears for facilities that are intended for use after sunset.
- *Attractive Places to Walk.* Walking is a slow or moderately paced activity, and it is frequently a solitary one. Therefore, pedestrians have the opportunity to really enjoy their environment. Features which enhance the walker's sensory experience, including park trails in scenic situations, historic elements, such as architecture and interpretive signs at significant sites, and concentrated activities such as farmers' markets or street fairs, have been clearly identified as methods to make walking more popular.

Typical regulations related to pedestrians include:

- Pedestrians are subject to traffic-control signals at intersections.
- Where traffic-control signals are not in place, the operator of a vehicle must yield the right-of-way to a pedestrian crossing within marked or unmarked crosswalk at intersections.
- Pedestrians must yield the right-of-way to all vehicles when crossing at any point other than marked crosswalks or intersections. Pedestrians must not cross at any place except in marked crosswalks between adjacent intersections that have traffic-control signals.

### *Bicycle Users*

Distance also has a significant impact on the choice to bicycle rather than use motorized transportation. Therefore, transportation planners assume that the farther one is from a destination, the less likely one is to prefer bicycling. The distance factor has become a common tool to help identify the market for non-motorized transportation. The accepted literature in the field has attempted to quantify average trip lengths; in the late 1970s, the paradigm was that most bicycle trips were less than two miles. In the early 1980s the paradigm was reinforced—studies showed that 90% of work trips taken by bicycle were two miles or less, as were 84% of other utilitarian trips. A 1990 study conducted in Denver found the mean bicycle trip length to be 2.1 miles.<sup>6</sup>

According to the National Bicycling and Walking Study, "... levels of bicycle commuting in twenty cities were compared across a number of objective physical, environmental and infra-structural features. The most significant variable appears to be

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<sup>5</sup> Federal Highway Administration. *Facts and Figures: National Overview*. (Project: AP-18, 1995 statistics)

<sup>6</sup>U.S. Department of Transportation, Federal Highway Administration. *National Bicycling and Walking Study. Case Study Number 1: Reasons Why Bicycling and Walking Are Not Being Used More Extensively as Travel Modes*. (Federal Highway Administration Publication Number FHWA-PD-92-041, 1994) 7

the dominating presence of a university . . . In fact, no other factor correlates so consistently with high levels of bicycle commuting."<sup>7</sup> However, even when excluding college towns, cities with higher rates of bicycle travel to and from schools and workplaces have, on average " . . .70% more bikeways per roadway mile and six times more bike lanes per arterial mile."<sup>8</sup>

Bicycle facilities should generally be made available for three levels of proficiency. Novice cyclists will be most comfortable on lightly traveled residential streets and on off-road, multi-use bike routes or greenways. Basic bicyclists, those who have gained confidence and proficiency and have been educated in issues related to bicycle and pedestrian safety, should be comfortable with signed, on-street bike routes in association with pedestrian routes. Basic bicyclists will, of course, also enjoy multi-use, off-road trails and vehicular/pedestrian/bike routes adjacent to arterial and collector roadways. Proficient bicyclists, experienced riders who bicycle for transportation, recreation, health and sport, will find all trail design levels appropriate including bike routes in rural areas that consist of wide, paved road shoulders.

Most states and communities treat bicycle riders the same as operators of motorized vehicles. Common rules and regulations that apply to bicycle riders are as follows:

- All bicycle riders are granted the rights and duties applicable to drivers of vehicles; bicyclists must obey all traffic control signals and signs, including no right turn or U-turn signs.
- Bicyclists must ride as near to the right side of the roadway as practical and may not ride more than two abreast except on paths set aside for the exclusive use of bicycles.
- When paths for bicycles are provided adjacent to the roadway, bicycle riders must use the paths and not the roadway.
- Bicyclists must yield the right-of-way to pedestrians when emerging from alleys, driveways or buildings and approaching a sidewalk. When in the roadway, they must yield the right-of-way to vehicles approaching the roadway.
- Bicyclists may not park bicycles in such a way that they impede pedestrian circulation on sidewalks or on multi-use trails.
- Bikes must be equipped with lights and reflectors if used at nighttime.
- Bicycles must be equipped with brakes that enable the rider to make the braked wheel skid on dry, level, clean pavement.

The Gwinnett County Comprehensive Transportation Plan completed in May of 2001 recommends bicycle and pedestrian improvements, including sidewalks, bike routes,

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<sup>7</sup>Ibid., 1

<sup>8</sup>Ibid., 1

bike lanes and multi-use trails. The standard sidewalk is to be built adjacent to roadways and is to provide connections for trips of under 0.5 miles. Long-distance bicycle trips are expected to rely on bike routes, which have limited roadway improvements and often use traffic lanes or roadway shoulders for bicyclists. Short distance trips will utilize more developed bike facilities including bike lanes and multi-use paths or trails. These will be built adjacent to smaller roads and provide access to community facilities such as schools and libraries.

## 6D. Trail Standards

The following standards are adapted from a number of sources, including AASHTO, and various state highway departments' planning and design guidelines for bicycle and pedestrian facilities.

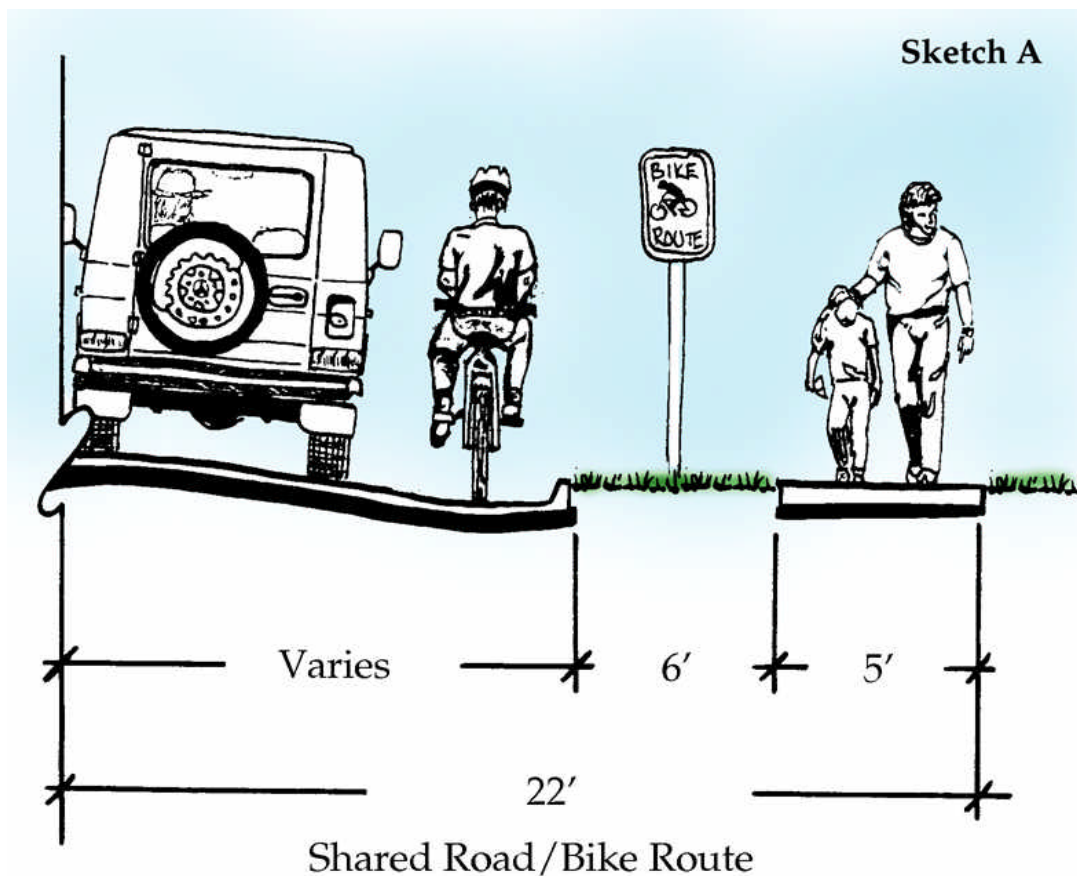
*Pedestrian Walks.* Pedestrian walks incorporate existing sidewalks with needed repairs, improvements and additions to provide safe connections and links between neighborhoods, schools, parks and other activity centers. These routes should be developed to a level appropriate for all pedestrians, including children, senior citizens and individuals with disabilities.

*Vehicular/ Pedestrian/ Bicycle Routes.* In addition to providing travel routes for walkers, pedestrian routes can also facilitate bicycling. Designated bicycle routes are suggested ways for a cyclist to get from a point of origin to a destination. A street does not necessarily have to be physically widened in order to be designated as a bicycle route. A street with standard 12' wide lanes can be designated as a bike route if certain conditions are met. To accomplish this, bicycle route signs should be placed at all areas where new traffic enters the roadway. The distance between signs should not be greater than two miles. In urban areas, directional arrows should be used at intersections to indicate whether the bicycle route continues through the intersection or turns right or left.<sup>9</sup> Bicycle route signs help encourage use and warn motorists that bicyclists may be using the road. These signed routes are considered appropriate for basic and proficient bicyclists.

The *Bike Route Sketch A* shows a typical urban situation where motor vehicles and bicycles share a single lane on streets with speed limits under 35 mph. It should be noted that standard dimensions shown in all succeeding illustrations identify minimum widths for specific applications. Where existing right-of-way is greater than that shown (ROWs are typically 40'-50' for small streets), or where trail construction will require land acquisition, the minimum widths can and should be exceeded, especially to increase safety and to allow for street trees. These sketches are general and conceptual. Design standards for on-street bike lanes should be developed after consideration of many factors, including vehicle operating speeds, traffic volume and composition, and the number of turning movements.

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<sup>9</sup>Greenways Incorporated and Lose & Associates, Inc. *The City of Murfreesboro Bicycle Plan*. (Murfreesboro, January, 1994) 45

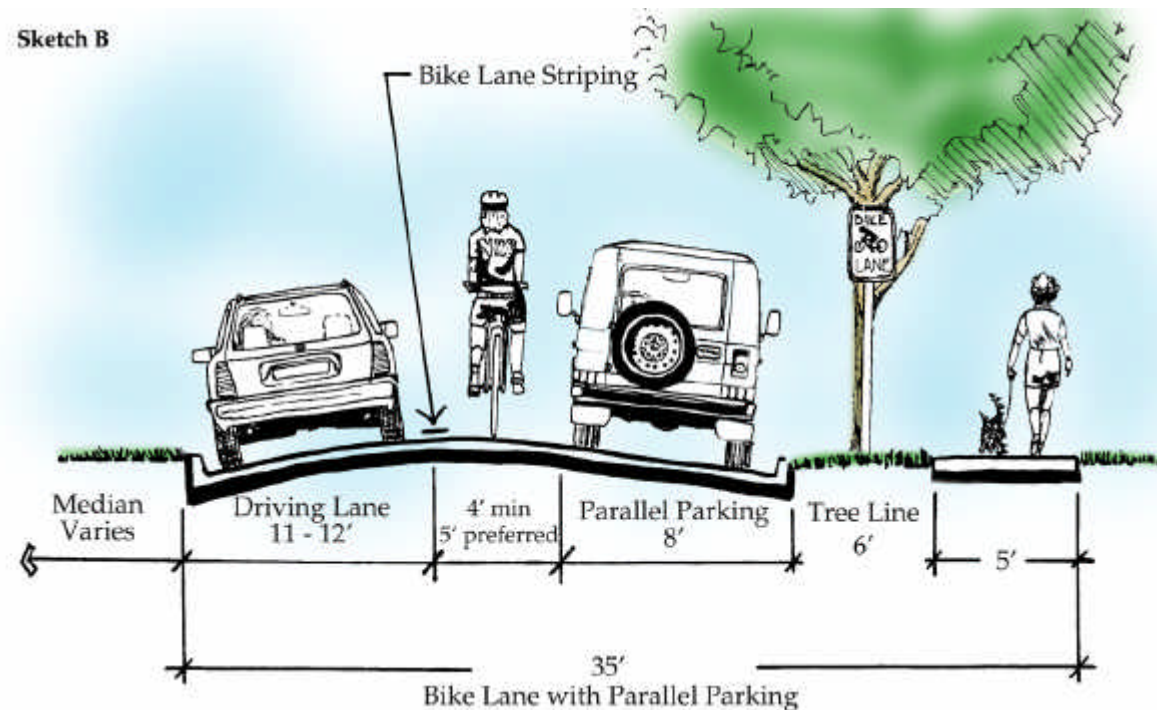


The primary function of streets and roads is to move people from place to place, not to store vehicles. When parking is removed, safety is improved. However, there will certainly be cases where on-street parking cannot be removed. Factors such as the number of businesses and residences, and the availability of both on-street and off-street parking, must be carefully considered as retrofits are planned. In cases where it is not practical or possible to eliminate on-street parking, the shared lane plus parking concept shown in *Sketch B* is appropriate—although this design may present problems in areas where the number and awareness of cyclists is not that great because of the danger of suddenly opened vehicle doors blocking the bike lane.

Vehicular/Pedestrian/Bicycle routes are planned for shared use with striped and signed bicycle lanes and separated sidewalks for pedestrians. These routes can accommodate cyclists in several ways. A restricted segment of a shared street or roadway for use by cyclists can include a colored stripe as separation between vehicles and bicycles. The stripe provides psychological rather than physical protection. However, the separation can also be raised to the level of a barrier—plant materials, guardrails or low curbing can be installed to physically separate bicycle and vehicular use.<sup>10</sup>

<sup>10</sup> George E. Fogg. *Park Planning Guidelines*. (National Recreation and Park Association, 1990) 36

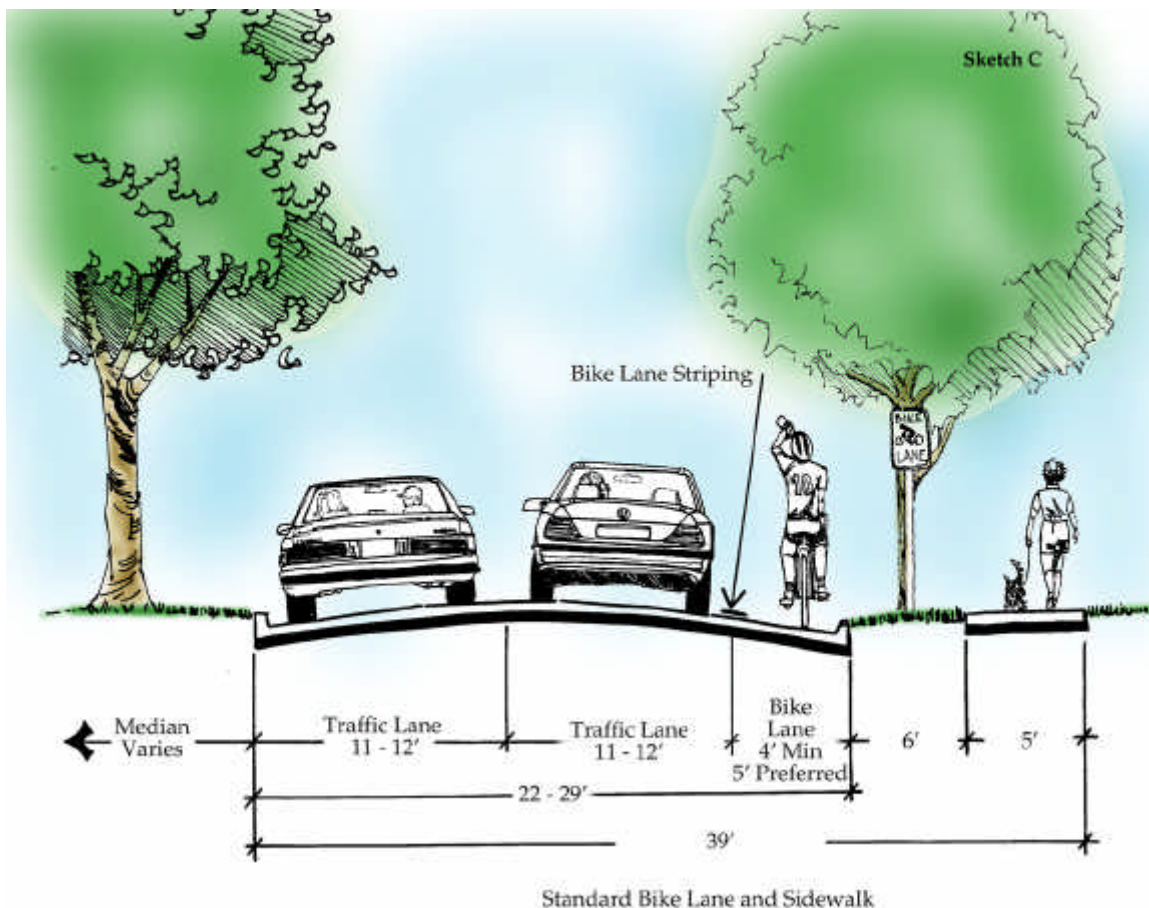
Vehicular/Pedestrian/Bicycle routes should be designed to accommodate all pedestrians, including children, senior citizens and individuals with disabilities. They are appropriate for use by basic and proficient bicyclists.



Vehicular/Pedestrian/Bicycle routes frequently depend upon existing roadways for their alignments, as they either share or closely follow these vehicular corridors. Therefore, design development phases of greenbelt implementation will determine the specific details of manipulating the existing circulation network to incorporate these routes. In the future, such routes should be designed in conjunction with all new, improved or reconstructed roadways to assure integrated and safe non-motorized use. "To varying extents, bicycles will be ridden on all roadways where they are permitted. Thus, all roadways must be built with the assumption that they will be used as shared lane facilities, with bicyclists and motorists traveling to the same destinations."<sup>11</sup> See *Sketch C, Typical Shared Uses*.

*Multi-use off-road trails* are typically 12' wide to provide two-way travel and serve a variety of users, including walkers, joggers, runners and bicyclists. In order to ensure safety and access for all users, the trail should be paved, depending upon the location. Pervious paving materials, that are ADA-compliant and accommodate wheeled equipment, should be used where it is appropriate. In areas where jurisdictional wetlands occur, the trail should transition to boardwalk. All on-grade trails will require a 2-foot cleared shoulder on both

<sup>11</sup> North Central Texas Council of Governments. *Bicycle and Pedestrian Facilities Planning and Design Guidelines*. (Arlington, Texas, 1995) 2-31

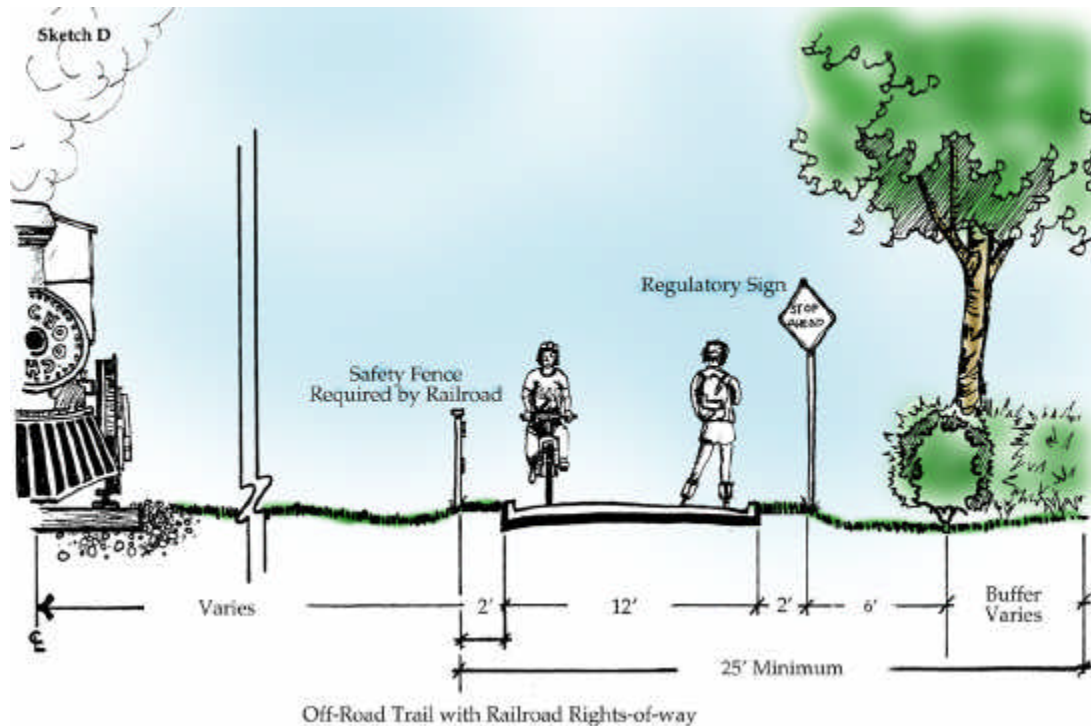


sides of the trail for maneuverability and safety. A painted centerline stripe to control travel direction should also be considered. Detailed design of the multi-use trails should follow AASHTO standards and criteria in order to accommodate bicycle travel at a maximum speed of 20 mph. The trail should also be designed to support vehicles weighing 6.5 tons at a maximum travel speed of 15 mph<sup>12</sup>, to provide for emergency and maintenance access. Multi-use trails should be designed to serve all pedestrians as well as basic, novice and proficient cyclists.

Multi-use trails can be in the floodplain of rivers, streams and creeks. Such trails should avoid the state required buffering and any wetlands. They provide access to and connections between historic and cultural sites, exceptional natural resources and other points of interest. Multi-use trails may follow roadways, but physical separation is established between motor vehicles and trail uses. Along portions of the trail, changes in elevation are required to conform with existing topography, avoid significant natural features such as rock outcroppings, or compensate for fill materials in floodplains. In these transition areas, porous or standard concrete ramped trails with supporting gabion walls should be

<sup>12</sup>Greenways Incorporated and Lose & Associates, Inc. *Master Plan Summary Report for the Stones River Greenway*. (Murfreesboro, TN, 1993) 17

employed. Trails should not exceed a five percent vertical slope in order to comply with ADA guidelines for accessibility and to maximize user comfort. Any trails that exceed five percent are considered ramps and must conform to specific ADA requirements relevant to handrails, length of run, landings and other issues. *Sketches D and E* illustrate typical off-road multi-use trails.



*Bicycle Routes*, according to the American Association of State Highway and Transportation Officials (AASHTO), are "...segment[s] of a system of bikeways designated by the jurisdiction having authority with appropriate directional and informational markers."<sup>13</sup> AASHTO defines bikeways as "...any road, path, or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes."<sup>14</sup>

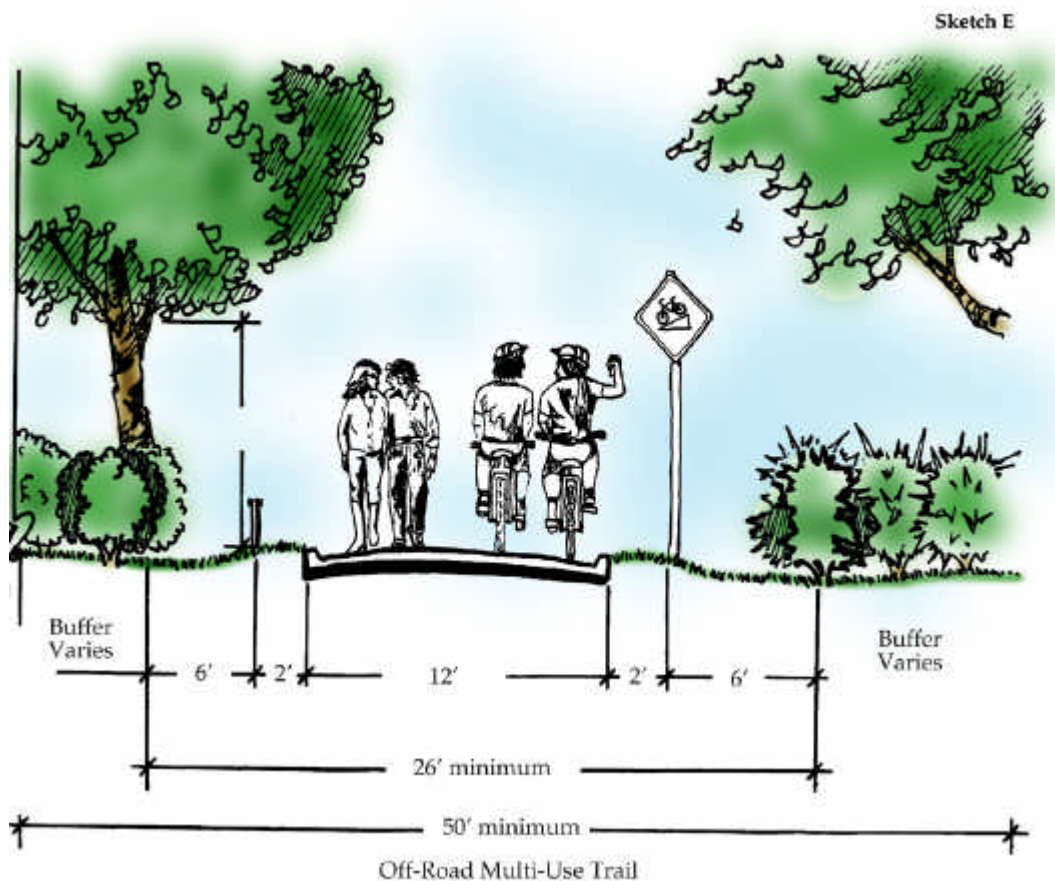
Bicycle routes incorporate wide, paved shoulders and are clearly signed as bicycle routes. Paved shoulders are recommended primarily for rural areas. Shoulders should be a minimum of 4'-6' wide to accommodate cyclists depending on traffic volumes, speed limit and amount of truck traffic. Paved shoulders should have the same pavement thickness and sub base as the adjacent roadway and should be regularly swept and kept free of potholes. When signed

<sup>13</sup> American Association of State Highway and Transportation Officials. *Guide for the Development of Bicycle Facilities*. (Washington, D.C., 1991) 3

<sup>14</sup> *Ibid.*, 3

as bicycle routes, adequate maintenance must be provided to ensure the safety of riders.<sup>15</sup>

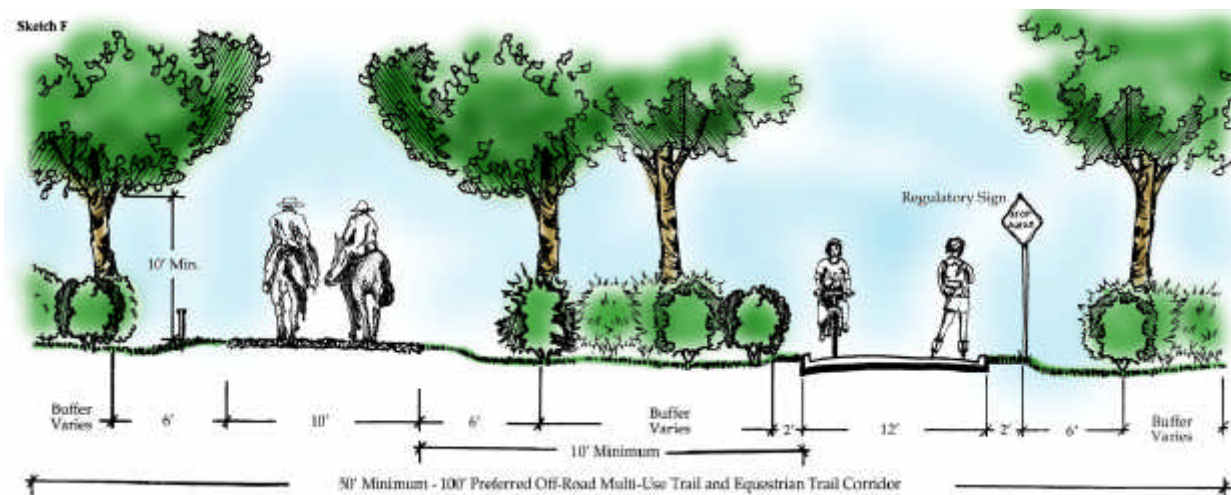
Planning for bicycle facilities must be considered as improvements in existing roads are made and as new travel ways are built. Relatively inexpensive roadway improvements can enhance bicycle safety and travel. As the greenway system is implemented, careful consideration must be given to removing obstructions or impediments on roadways that will become designated bicycle routes. Bicycle route signs should be installed only after shoulders are paved and, if necessary, widened. Unsafe grates should be replaced, debris must be removed, narrow lanes should be widened, rough pavements smoothed and high-speed vehicular travel addressed through traffic calming devices. Additionally, the differences among bicyclists' abilities and purposes for riding must be understood and considered as bicycle transportation improvements are made. Not all designated bicycle routes will be suitable for all riders. Novice bicyclists should not be encouraged to use these routes, but basic and proficient riders should be comfortable on designated bike routes that have received the requisite improvements for safety and comfort.



<sup>15</sup>Greenways Incorporated and Lose & Associates, Inc. *The City of Murfreesboro Bicycle Plan*. (Murfreesboro, January, 1994) 44

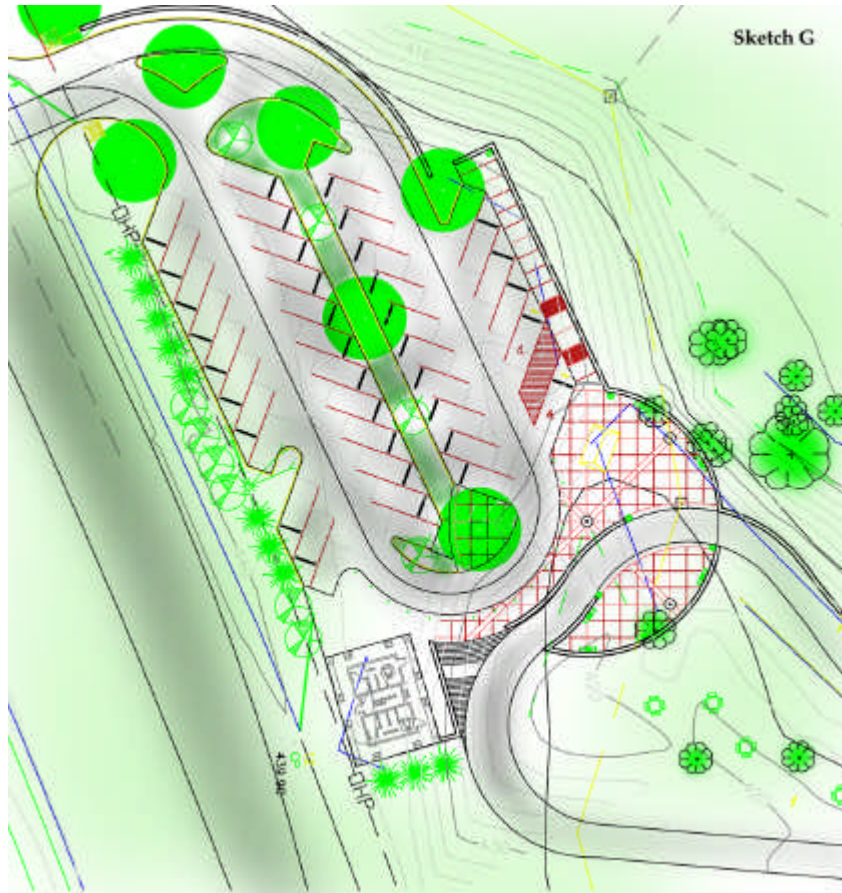
*Scenic Drives* are located in areas of the County that have significant aesthetic and natural qualities but are not as conducive to pedestrian and bicycle use due to excessive topography or other natural site constraints. Scenic drives should, where feasible, incorporate historic sites and existing highway historic site markers and provide interpretive waysides at critical points.

## 6E. Ancillary Trail Facility Standards



*Equestrian Paths.* Equestrian paths are a common element found in parks across America. In recent years, these paths have been expanded beyond park boundaries and included in greenway systems. Equestrian paths, when constructed in a greenway corridor, should be separated from the primary paved trails. This prevents a bicycle rider and horse encounter that can spook the horse. Equestrian paths should be a prepared natural surface, 10' wide to accommodate horses passing in opposite directions. Clearing for equestrian paths should be limited to removing limbs to a height of 10' above the trail, and those trees that fall directly in the path. At streams, horses should be allowed to cross at shallows. For large streams, covered bridges are recommended. Roadway crossings can be at grade on roads with very low traffic volumes or via tunnels constructed under high traffic roads. Where equestrian trails merge, or cross-paved trails, 3 rail wooden fencing is recommended to separate the two trail types for a minimum of 30' from the intersection. See Sketch F.

*Trailheads.* In simple terms, trailheads are trail access points. However, in terms of available facilities they can be extremely diverse. Trailheads will establish the trail user's first impression of the greenway system, therefore, their detailed design will be critical as construction documents are developed for implementation. Where possible, trailheads will be located in or adjacent to existing or planned parks so that public amenities such as restrooms, telephones, parking, picnic pavilions, playgrounds and general recreation facilities are already available. Frugal use of economic resources dictates this course. However, economy of means is not the only factor in this reasoning. By clustering recreational opportunities, the Gwinnett County community will have a greater range of choices to improve their health, quality of life and leisure time. See Sketch G.



The following general criteria apply to trailheads regardless of the level of development:

- 1) Circulation. Adequate, efficient and safe space must be provided for vehicles, bicycles and pedestrians to maneuver.
- 2) Parking. There must be an adequate number of spaces for the anticipated level of use of the particular facility including, where appropriate, spaces for RVs, buses, bicycles and small trailers for boats and canoes.
- 3) Structures. Again, depending on the anticipated level of use, buildings may be required. Structures may include gazebos, picnic shelters or pavilions, restrooms, maintenance and storage facilities, information booths and kiosks.
- 4) Emergency telephones.
- 5) Site furnishings including benches, trash receptacles and playgrounds.
- 6) Signs.
- 7) Fences and lockable security gates.
- 8) Security lighting.
- 9) Landscaping.
- 10) Connector trails to the main trail.
- 11) River access where appropriate.

*Trail Signage.* The primary purpose of trail signs is to aid and instruct users of the greenbelt system. Signs fall into three categories: regulatory, warning and guidance. Regulatory signs provide operational requirements and are used for traffic control. This category includes stop and yield signs, right-of-way signs, speed limit signs and exclusion signs. They are normally installed where specific regulations apply.

Warning signs function as their name implies—they identify existing or potentially hazardous conditions on or near the trail, and they caution users to reduce speed or dismount a bicycle for safety reasons. They are typically used near intersections, bridges, crossings and tunnels. Warning signs should also be employed to indicate significant grade changes, upcoming traffic control devices and changes in surface conditions.

Guidance signs instruct—they provide trailside information to orient users geographically. The typical "you are here" map is an excellent example of this category of sign. Guidance signs can be both directional and informational. Directional signs point out nearby support facilities and points of interest such as historic sites and unique natural resources. In this respect guidance signs are often referred to as interpretive signs.<sup>16</sup>

Trails are transportation corridors and for that reason recognizable transportation signs can be adapted for trail use. However, an independent sign "package" that coordinates all greenway-related signage should be developed in succeeding phases of the county-wide trail system design. The sign package facilitates several goals—most importantly, it reinforces an overall aesthetic image that incorporates the greenway logo and colors. With consistent application of greenway sign standards, trail users will quickly learn to recognize and comprehend trail components. The trails will be more user friendly, easier to navigate and safer.

*Wayside exhibits* are built adjacent to trails or at the terminus of a connecting trail. These areas contain interpretive signs that provide information on the natural environment or on cultural and historic points of interest in the vicinity. They also provide small areas where people can sit, relax and enjoy a quiet moment.

*Landscaping and gateways.* Landscaping will be required not only at trailheads but virtually all along the trail network. Greenway construction will require grubbing and clearing and some loss of existing vegetation. At first, this may seem regrettable, however, it also presents real opportunities for ecological restoration and beautification.

Where possible and practicable, native species should be preserved as trails are installed. However, invasive exotic species such as privet, honeysuckle, kudzu and multiflora roses should be removed. Additionally, damaged trees should be examined by certified arborists. Trees in extreme states of decline should be

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<sup>16</sup>Karen-Lee Ryan, editor. *Trails for the Twenty-First Century: Planning, Design, and Management Manual for Multi-Use Trails*. (Island Press: Washington, D.C., 1993) 122-123

removed, especially if they present safety hazards. Dominant native plants in the areas of disturbance can then be reintroduced and function to provide visual screens, walls, buffers and overhead canopies. The particular environment and intended purpose of landscaping will influence the overall plant palette and native trees do not have to be used exclusively—some situations will certainly benefit from more ornamental introductions. However, native vegetation should be considered wherever possible and especially in riparian areas where it can protect the environment and stabilize riverbanks. Indigenous plant material will be the most robust and will adapt best to local climate, soils and precipitation.

In most cases, a cleared area should be maintained for six feet on each side of trails. Therefore, new trees and shrubs should be planted so that they do not encroach upon that six foot cleared area. By maintaining this minimum six foot space, visibility will enhance user safety and tree roots will be less likely to damage trail surfaces. For reasons of security, dense shrub plantings should be avoided adjacent to the trail. Occasional open spaces will also increase security by providing clear routes for people to exit the trail in the event of emergencies.

The construction of the Greenway and Open Space System also presents opportunities to create gateways to cities and towns in Gwinnett County. Landscaping and signage can be extended from the greenway to major vehicular access points to individual communities. These gateways visually frame points of ingress and egress and can significantly improve the aesthetic impression on residents and visitors as they travel through the County. Gateways should utilize native plants and grasses when possible.

*Canoe portage* points provide facilities for canoe put-in and take-out. At a minimum, they include a paved access path to natural staging and launching areas. Additionally, a flow gauge should be provided to indicate the degree of safety for canoeing.<sup>17</sup> In some situations a minimal amount of shotcrete or concrete may be required to improve footing and access at the water and stream bank edge. In other situations a system of large steps or terraces can be constructed of recycled plastic and wood timbers to facilitate put-in and take-out at varying water levels.

Canoe portage points will, wherever possible, take advantage of existing park facilities or proposed trailheads for parking, picnicking, restrooms and other amenities. The launch areas should be as close as possible to the parking lot for convenience, but also be located in such a way as to protect the natural environment. In some situations, portage points will be independent of park facilities and will require dedicated parking. Roadway pull-offs with stacking room for two or three users may be adequate. In other cases, more developed parking amenities will be required. Again, the parking should be located as close as possible to launch areas for convenience. However, if parking lots are built too close to

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<sup>17</sup>Greenways Incorporated and Lose & Associates, Inc. Master Plan Summary Report for the Stones River Greenway. (Murfreesboro, TN, 1993) 18

shorelines, construction may significantly alter the site environment and contribute to soil erosion.<sup>18</sup> Where canoe access points are not built adjacent to existing park facilities, they can be expanded to fulfill the requirements of trailheads.

*Maintenance, Safety and Security* requires long-term commitment, consistency and enthusiastic public involvement. Regular maintenance ensures trail safety and reduces potential political liability. Additionally, regular maintenance will protect the community's significant investment in the greenbelt system by prolonging the life of trail facilities. According to generally accepted standards, the following tasks should be part of a maintenance schedule:

- 1) Signs and traffic markings for motorists and trail users must be inspected regularly and kept in good condition. Pavement markings must be kept clear and legible.
- 2) Sight distances, especially those leading to crossings and curves, should not be impaired by vegetation. Trees, shrubs and tall grass should be trimmed to meet sight-distance requirements based on a 20-mile-per-hour design speed. Adequate clearance must also be maintained overhead and on both sides of trails.
- 3) Trail surfaces should be patched on a regular basis—patches must be flush with the finish surface of the trail.
- 4) Trail damage from seasonal washouts and silt or gravel washes must be repaired as soon as possible after they occur. Recurring drainage problems should be identified and remedied. Culverts, catch basins and other drainage structures should be cleaned at least once a year.
- 5) Regular sweeping and cleaning will be required to keep the trail free of debris, including broken glass, loose gravel, leaves and trash.
- 6) Structures such as pavilions and restrooms should be inspected annually to ensure they are in good condition. Special attention must be paid to wood foundations and posts to determine if rot or termites are present. At the same time, site furniture and other support facilities should be inspected.
- 7) Mow trail shoulders and other selected areas on a scheduled basis depending upon season, species and rate of growth.
- 8) Remove storm-tossed limbs and fallen trees as soon as possible. Inspections should also occur after significant storms to determine whether tree damage poses any potential danger.

Refer to Section 3C for overall open space and greenway operations and management policies and strategies.

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<sup>18</sup>John Hultsman, Richard L. Cottrell and Wendy Z. Hultsman. *Planning Parks for People*. (Venture Publishing: State College, Pennsylvania, 1998) 73

## 6F. Proposed Greenway Corridors and System Description

### *System Components*

As discussed in the Design Standards Section of the master plan, a greenway system is made up of standard elements that are interconnected to create a separate transportation and recreation system for both short and long term trips. In developing the routing plan for the Gwinnett Open Space and Greenway System, we have divided the routes into two major groups: on-road systems and off-road systems. The on-road systems would contain sidewalks, bike routes, bike lanes and off-road paths that are constructed within the right-of-way of a road. The off-road systems are multi-use paths that are developed in rights-of-way that are shared with utilities or are acquired exclusively for the development of greenway paths. These off-road systems would fall within road right-of-ways only at points where they connect to road-based systems, or cross a public street. Off-road trails can include 12' paved trails, natural surface walking paths of various widths and 10' natural surface equestrian paths.

### *Right-of-Way Requirements for Off-Road Trails*

There are no established width standards for right-of-way acquisitions for off-road trails. However, based on previous greenway projects developed by Lose & Associates and research on other greenway projects across the country, it is recommended that the minimum width of greenway rights-of-way be 50'. With a 50' width, a vegetative buffer can be maintained along the trails. These buffers will provide a green corridor to be enjoyed by trail users and provide cover for wildlife to move within the corridor. When multiple trails will be developed in the corridor, such as a 12' paved trail and a natural surface equestrian trail, it is recommended rights-of-way be increased to a minimum of 75'. This will allow for separation between the two trails for improved safety and enjoyment for all users. Equestrian trails should not be combined with any type of bicycle trail for safety. Pedestrian activity on equestrian trails is not desirable, but is a common use of equestrian trails.

The placement of the rights-of-way is another important factor that must be considered. The development of a greenway system as part of a larger open space system provides opportunities for a variety of trail placements within the larger open space system. The trails can be built within buffer areas required for water quality protection, within floodplains purchased for flood storage, or outside the floodplains but still within river corridors. To minimize impact on water quality and flood storage, the best location for the trails would be within a zone that adjoins the outer edge of the floodplain. This would place the trails in a vegetative zone that is very diverse and would limit potential flooding of the trail. This will be most practical along the larger streams that have wide floodplains and along smaller streams that have limited development at this time. In areas where there are smaller floodplains and more development has occurred, the trails will most likely have to be closer to the streams and within the floodplain and, in some cases, within the stream buffers. In all cases, if the County does not own the property in fee simple, a right-of-way easement purchase will be required to construct

the trail. In locations where the trail right-of-way does not abut the river or stream, the area between the trail and the river or stream should be considered for inclusions in the right-of-way. This will prevent unwanted development from occurring between the trail and the river or stream. The net result is more open space that is protected.

On sections of the greenway that run overland via utility corridors, a smaller right-of-way can be acquired. For example, if a trail is to be built in a utility corridor that has a 100' easement, the trail right-of-way could be reduced to 25'. This would provide adequate area to construct the trail, and provide areas on each side of the trail as a safety buffer. When the County has to purchase the right-of-way for the trail, the reduced width would also reduce the overall cost. As trees and other large landscape materials are not desired within these utility easements, a vegetative buffer will not be possible. The potential for undesirable encroachments is much lower within the utility easements as the utility company limits development within their easements. If the rights-of-way granted within the utility easements are at no cost to the County, the County can request the full 50' right-of-way if they feel the potential for parking lots or other undesirable facilities are likely to encroach on the trails.

In all greenway projects there are areas where natural features or existing facilities limit the area in which a trail can be constructed. In these locations the right-of-ways often are reduced and fall just outside the trail safety zone. This is also true where boardwalks are constructed as part of the trail to cross large wetland systems. Because there is a very low potential for development adjacent to the boardwalk the County would not have to buy a large right-of-way to buffer the trail. However, acquisition of wetlands for interpretive use and protection of wetland systems is desirable.

### *Routing Plan*

In developing the routing plan the following design principles were applied:

High priorities for connections are parks, schools, public facilities and residential areas.

Routes should make connections through undeveloped property whenever possible.

Follow natural corridors, such as river and streams, to take advantage of floodplains that have less development.

When required, use road-based systems to make connections between off-road trails to complete looping opportunities or to link to high priority facilities.

Utilize existing utility transportation corridors for overland connections to stream and road-based trail systems.

Anticipate the impact of trail construction on undeveloped properties and locate trail to minimize impacts on future development.

Review existing planning documents and previously proposed trail and bicycle routes, and look at possible overlap and connection potential.

Using these design principles the greenway system has been routed throughout the County. The routing plan as proposed will provide connections to all the major parks in the County and most schools. Many of the proposed routes can be constructed with minimal impact on existing residential development but some connections are required through existing subdivisions. Developing routes through subdivisions was avoided where possible by using road-based sidewalk and bicycle connectors. However, these connections are not as desirable from the user standpoint nor are they as safe for children traveling to schools. Placing young children on road-based systems is not a choice most parents would prefer when the option to let them use off-road trails is available. For this reason, we would recommend that the highest priority for construction of facilities be for off-road trails that connect neighborhoods to parks and schools.

The off-road trails can be classified in two categories: primary trails and secondary trails. Primary trails are those trails that run for long distances and are served by many branch trails. Most of the primary trails follow major streams or creeks and collect secondary trails that follow smaller streams or connect to a single destination. There are some overland primary trails that follow major utility easements rather than stream corridors. The secondary trails are short trails that are provided to connect neighborhoods, commercial districts or single facilities to the primary trails. Both trail types would be the same size, but primary trails are expected to carry larger volumes of users.

The potential for development of the off-road trails will be greatest in the northern and eastern sections of the County where more open land exists and along the major streams where limited floodplain development has left open corridors. A good example of an open corridor is in the south central section of the County that is the Yellow River Corridor. Trails developed along the floodplain of the river and tributary streams have the potential to connect Bethesda Park, Five Forks Park and Yellow River Park. Starting at a point near Lawrenceville Highway and running southward to Yellow River Park this corridor is approximately 19.27 miles long. This type of corridor can be developed throughout the County along the Chattahoochee, Alcovy, Apalachee and Mulberry River systems, and along the Big Haynes, Suwanee, Ivy, No Business and Brushy Creek systems among others. A brief description of each of these primary trails is provided.

## 6G. Primary Trail Route Descriptions

### *Alcovy River Trail Route*

Located in the eastern part of the County, the Alcovy River trail is 13  $\frac{3}{4}$  miles long and runs from the Gwinnett County and Walton County line to Freemans Mill Elementary School. Starting at the County line, the trail follows the Alcovy River in a northwesterly direction primarily over large areas of undeveloped land, crossing New Hope Road, Brooks Road, Alcovy Road, Winder Highway and the railroad before crossing Highway 316. After crossing under Highway 316, the trail travels in a northerly direction across a couple of undeveloped parcels before the land becomes more residential. The trail crosses Hood Road and Old Fountain Road before intersecting with Prospect Church Road. The trail then follows Prospect Church Road for 1,400 feet to Old Peachtree Road for 4,000 feet to end at Freemans Mill Elementary School.

Many crossing trails, both on-road and off-road, connect to the Alcovy River Trail. These crossing trails provide access to numerous parks and schools. The entire 13  $\frac{3}{4}$ -mile trail is an off-road trail, except for the 1,400 feet along Prospect Church Road and the 4,000 feet along Old Peachtree Road. This trail has ten road crossings and two proposed trailheads.

### *Apalachee River Trail Route*

Located in the eastern part of the County, the Apalachee River trail is 12  $\frac{1}{2}$  miles long and runs from the Gwinnett County and Walton County line to Fort Daniel Elementary School. Starting at the County line, the trail follows the Apalachee River in a northwesterly direction primarily over large areas of undeveloped land, crossing Harbins Road and Kilcrease Road before crossing Highway 316. After crossing under Highway 316, the trail travels north across an undeveloped land crossing Lawrence Road, Winder Highway, the railroad and Apalachee Road. The trail then takes a westward jog around a subdivision before intersecting with Old Auburn Road. Moving north between subdivisions and around the Trophy Club at Apalachee Farms Golf Course, the trail crosses undeveloped land to connect to Bailey Woods Road. The trail transitions to an on-road system at this point and follows Bailey Woods Road the remaining 1,000 feet to Auburn Road. The final 7,500 feet of trail follows Auburn Road ending at Fort Daniel Elementary School.

A series of on-road and off-road trails near the City of Dacula, Dacula Park, Dacula Elementary School, Dacula Middle School and Dacula High School connect to the main trail. Little Mulberry Park is about a mile away from the main trail, so it connects to an off-road trail near Auburn Road. The entire 12  $\frac{1}{2}$ -mile trail is an off-road trail, except for the 1,000 feet along Bailey Woods Road and the 7,500 feet along Auburn Road. This trail has 15 road crossings and one proposed trailhead. It connects to 4 schools and 2 parks.

### *Big Haynes Creek Trail Route*

Located in the southern part of the County, the Big Haynes Creek trail is 9 ¼ miles long and runs from the Gwinnett County and Walton County line to Grayson Highway. From the County line, the trail follows the Big Haynes Creek north crossing Centerville Rosebud Highway, Lenora Road and Pate Road on the path to Temple Johnson Road. During this stretch, the trail follows the creek mainly across either undeveloped land or large developed tracts of land. After Temple Johnson Road, the trail encounters residential subdivisions that it meanders through, occasionally crossing undeveloped land when it is available, until it intersects with Athens Highway after crossing Summit Chase Drive. The trail then travels primarily across undeveloped land and larger tracts of land as it crosses Grayson Parkway, Pinehurst Road and Lakeview Road. Once again, the trail meanders through residential subdivisions, finding undeveloped land when it can, crossing Pinehurst View Drive, Hillside Drive and Great Oaks Drive. From Great Oaks Drive, the trail follows a stream across a large tract of developed land, around a cul-de-sac and along the border of undeveloped land to Grayson Highway.

The entire 9 ¼ mile long trail is an off-road trail. By on-road cross trails, Lenora Park, Norton Elementary School, Snellville Middle School, Britt Elementary School and South Gwinnett High School connect to the main trail. Summit Chase Golf Course connects via an off-road trail. This trail has 13 road crossings and two proposed trailheads.

### *Brushy Creek Trail Route*

Located in the northern part of the County, the Brushy Creek trail is 5 miles long and connects the Chattahoochee River Greenway to a proposed overland trail near the proposed Northern Arc. The trail, starting at the Chattahoochee River Greenway, meanders easterly along the creek to Peachtree Industrial Boulevard. From there, it proceeds in a northeasterly direction crossing McGinnis Ferry Road as it travels the northern border of two large apartment complexes. Continuing in that general direction, the trail eventually crosses Stonecypher Road where it moves north towards Suwanee Dam Road across undeveloped property. After crossing Suwanee Dam Road, the trail meanders northeasterly, primarily through undeveloped land, crossing Tench Road and intersecting with West Price Road. The trail's final leg follows West Price Road for 2,750 feet crossing a railroad and the proposed Northern Arc, until it ends by intersecting a proposed overland trail.

On the western edge of the trail, the Chattahoochee River National Recreation Area at Suwanee Creek is accessible by the connection to the Chattahoochee River Greenway. Midway along the trail, a trail could be established to connect the Suwanee Public Library and City Hall to the system. At the intersection with Tench Road, a series of proposed on-road trails to the north ties North Gwinnett High School to the system, while a series of planned off-road trails to the south ties George Pierce Park and Suwanee Elementary School to the main trail. There are also several cross routes along the way that could connect the Brushy Creek trail to the Suwanee Creek trail. The entire 5-mile trail is an off-road trail, except for the final 2,750 feet along West Price

Road. This trail has seven road crossings and passes one existing lake and two proposed trailheads. It connects a total of one park and one school to the main trail.

#### *Chattahoochee River Trail Route*

Located along Gwinnett County's northwestern border with Fulton County and Forsythe County, the Chattahoochee River trail is 22.5 miles long. It connects the Chattahoochee River National Recreation Area (NRA) at Holcomb Bridge to the Chattahoochee River National Recreation Area (NRA) at Bowmans Island and Buford Dam Park. The trail primarily follows the river on the Gwinnett County side, but occasionally crosses to the Fulton County side to connect to other Chattahoochee River NRAs along the way.

Other Chattahoochee NRAs that the trail may travel through are Jones Bridge, Medlock Bridge, Abbotts Bridge South, Abbotts Bridge North and Suwanee Creek. The Pinckneyville Arts Center, Jones Bridge Park and Settles Bridge Park are also on the trail. Nearby schools that could connect to the system through a series of on-road and off-road trails are Simpson Elementary School, Pinckneyville Middle School, Berkley Lake Elementary School, Chattahoochee Elementary School and Riverside Elementary School. Berkley Lake Nature Preserve and Sweetwater Park are also easily accessible through connecting trails.

The entire 22.5-mile trail is an off-road trail. Although this route has no road crossings, it does travel under seven existing bridges (Holcomb Bridge Road, Medlock Bridge Road, Pleasant Hill Road, Duluth Highway, McGinnis Ferry Road, Cumming Highway and Buford Dam Road) and one proposed bridge (proposed Northern Arc), while passing through eleven parks and two proposed trailheads. Seven other proposed trailheads also give easy access to the trail.

#### *Ivy Creek Trail Route*

Located in the northern part of the County, the Ivy Creek trail is 7 ½ miles long and connects George Pierce Park and the Suwanee Creek trail to Bogan Park. The trail, starting at George Pierce Park, runs southwesterly along Ivy Creek, crossing Westbrook Road and meandering through residential areas until it crosses under Interstate 985. Continuing along the creek in an easterly direction, the trail travels primarily through undeveloped property and crosses Woodward Mill Road and Buford Drive. As it passes just south of the Mall of Georgia at Mill Creek, the trail crosses Mall of Georgia Boulevard and Woodward Crossing Boulevard before crossing the proposed Northern Arc and Gravel Springs Road. The trail then migrates north through a mixture of undeveloped and developed large tract land. It crosses Kilgore Road and Hamilton Mill Road as it finally runs across a stretch of undeveloped land and into the southeastern corner of Bogan Park.

On the western leg of the trail, between George Pierce Park and the Mall of Georgia at Mill Creek, Suwanee Elementary School connects to the main trail through the Suwanee

Creek trail, and Rock Springs Elementary School connects by either crossing under Interstate 85 or following Buford Drive over Interstate 85 to Rock Springs Road. On the eastern leg of the trail, between the Mall of Georgia at Mill Creek and Bogan Park, Harmony Elementary School, Hamilton Mill Middle School and Hamilton Mill Elementary School connect to the main trail using a series of on-road trails. The entire 7 ½ mile trail is an off-road trail. This trail has 10 road crossings. Four proposed trailheads could access the main trail.

#### *No Business Creek Trail Route*

Located in the southern part of the County, the No Business Creek trail is 6 ¾ miles long and will connect Norris Lake Park to Britt Elementary School and South Gwinnett High School. The trail starting at Norris Lake will run northerly through a portion of Norris Lake Park along No Business Creek. Continuing along the creek through undeveloped property, the trail continues north, crossing Lee Road and Egypt Road. Then the trail follows No Business Creek as it meanders north between residential property and undeveloped land crossing Centerville Rosebud Road and Golf Links Drive in the process. After crossing Golf Links Drive, the trail will follow the northeastern edge of the Trophy Club of Gwinnett Golf Course until it crosses back into undeveloped property to Springdale Road. Continuing through undeveloped land, the trail begins to follow an unnamed tributary that crosses Lenora Church Road into Briscoe Park, just north of Pate Lake. For the first time, the trail becomes an on-road trail following Ravenwood Drive for 2,300 feet until it crosses Church Street and becomes an off-road trail traveling just to the south of Martins Lake to Skyland Drive. The trail's final leg follows Skyland Drive ½ mile to East Main Street where it ends, just after passing between Britt Elementary School and South Gwinnett High School.

On the southern leg of the trail, between Norris Lake and Centerville Rosebud Road, three off-road trails, following tributaries of No Business Creek, connect Yellow River Park, Lenora Park and Partee Elementary School to the main trail. On the middle leg of the trail, between Centerville Rosebud Road and Springdale Road, on-road trails connect the main trail to Norton Elementary School, Centerville Elementary School and Snellville Middle School. The entire 6 ¾-mile trail is an off-road trail, except for the 2,300 feet along Ravenwood Drive and the ½-mile along Skyland Drive. This trail has nine road crossings and passes four existing lakes, two parks, two schools and one golf course.

#### *Suwanee Creek Trail Route*

Located in the northern part of the County, the Suwanee Creek trail is 12 ½ miles long and connects the Chattahoochee River Greenway to Buford City Park. The trail, starting at the Chattahoochee River, runs south before taking a sharp turn towards the east and travels between residential subdivisions before crossing Peachtree Industrial Boulevard. The trail continues meandering eastward across primarily undeveloped land and some wetlands, crossing the railroad, Buford Highway, Burnette Road and McGinnis Ferry Road. It then travels just north of Annandale and through Suwanee

City Park before crossing Martins Farm Road. The trail then takes a turn north across undeveloped land before turning sharply east towards Lawrenceville Suwanee Highway.

After crossing Lawrenceville Suwanee Highway, the trail follows Suwanee Creek just to the north of Suwanee Elementary School and along the southern border of George Pierce Park. After exiting the park, the trail crosses Westbrook Road and passes between residential subdivisions before taking a more northeasterly track across undeveloped land or large tracts of land. It crosses Woodward Mill Road, the proposed Northern Arc and Sudderth Road before intersecting with Buford Drive. After crossing Buford Drive, the trail take a more northerly route across primarily undeveloped land crossing Old Highway 20, Maddox Road and Hamilton Mill Road in the process. Following the western shore of Black Branch Lake, the trail continues along Suwanee Creek until just before it reaches Thompson Mill Road where it takes a sharp turn west across undeveloped land to Buford Highway. After crossing Buford Highway, the trail follows a stream across to undeveloped land before crossing Suwanee Street into Buford City Park.

On the western leg of the trail, between the Chattahoochee River and George Pierce Park, the Chattahoochee River National Recreation Area at Suwanee Creek connects via the Chattahoochee River Greenway. On the eastern leg of the trail, between George Pierce Park and Buford City Park, Suwanee Elementary School, Lanier Middle School and Harmony Elementary School connect to the main trail using a series of off-road trails. Buford Nature Reserve and Bogan Park could also have connections to the main trail via off-road trails. The entire 12 ½ mile trail is an off-road trail. This trail has 14 road crossings, two proposed trailheads, crosses through two parks and connects to three schools.

#### *Yellow River Trail Route*

Located in the southern part of the County, the Yellow River trail is 24 ½ miles long and will connect Yellow River Regional Park to Collins Hill Community Park. Starting at the Gwinnett County and DeKalb County line on Centerville Highway, the trail follows the Yellow River around a subdivision, across undeveloped land, through Yellow River Park and between residential subdivisions before intersecting with Annistown Road. From there, the trail meanders north through residential subdivisions before crossing Stone Mountain Highway. Then the trail travels back and forth between residential subdivisions as it crosses Killian Hill Road, Five Forks Trickum Road and River Drive before crossing the western edge of Gwin Oaks Elementary School on its way to Ronald Reagan Parkway. After crossing Ronald Reagan Parkway, the trail follows the river through undeveloped wetlands, across Arnold Road, through large acre tracts and undeveloped land, crossing the railroad and Lawrenceville Highway before traveling between residential subdivisions to Sugarloaf Parkway. The trail then migrates north between residential subdivisions, across Old Norcross Road and under Highway 316 before intersecting with Riverside Parkway.

From this point, the trail becomes an on-road trail traveling about 1 ¼ miles on Riverside Parkway to McKendree Elementary School and then back to off-road following the northeast boundary of the school back to the Yellow River. The trail follows the river around a residential subdivision, across Lawrenceville Suwanee Highway and between several residential subdivisions before intersecting with Collins Hill Road. An on-road trail picks up from this point, follows Collins Hill Road for 1 ½ miles and then becomes off-road again. The off-road trail travels across undeveloped land to Little Suwanee Creek, which forms the southeastern boundary of Collins Hill High School and Collins Hill Aquatic Center. The final leg of the trail follows the creek across Collins Hill Road and ends along the western shore of Lake Forest in Collins Hill Community Park.

This is a highly developed corridor and there are many nearby schools and several parks to connect to via on-road and off-road trails. The section between Centerville Highway and Annistown Road contains Partee Elementary School, Annistown Elementary School and the Deshong Tract. From Annistown Road to Stone Mountain Highway, the school complex of Shiloh Elementary School, Shiloh Middle School and Shiloh High School is accessible. Head Elementary School, Knight Elementary School, Five Forks Middle School and Gwin Oaks Elementary are located between Killian Hill Road and Ronald Reagan Parkway and easily connect to the system. Bethesda Park and Five Forks Park are located along Ronald Reagan Parkway and are less than a mile from the main trail.

A cross trail connects Maxwell High School and Benefield Elementary School to the trail. McKendree Elementary School is at the intersection of an on-road trail and an off-road trail off Riverside Parkway and Creekland Middle School connects off the cross trail via Russell Road. Finally, the trail ends in a complex of schools and parks including Walnut Grove Middle School, Collins Hill High School, Collins Hill Aquatic Center and Collins Hill Community Park. The entire 24 ½ mile trail is an off-road trail, except for the 1 ¼ miles along Riverside Parkway and the 1 ½ miles along Collins Hill Road. This trail has 16 road crossings and passes three schools and four proposed trailheads.

See the next four maps titled, *Proposed Trail Routes*, to review the entire trail system and the location of trailheads. The trail routes shown on each map graphically illustrate previously master-planned routes and new routes proposed by this plan. The maps also differentiate routes that are part of a roadway system or are multi-use, off-road trails.

## 6H. Pilot Projects

Four pilot corridors are recommended in this master plan. These four corridors are geographically well distributed throughout the County and contain many of the design elements listed for consideration. These four projects have a high probability for success in that they will have limited impacts on established residential neighborhoods and will provide many miles of trails. Each of the four pilot projects represent a portion of a larger primary system previously described.

### *Harbins –Alcovy River Trail*

This trail corridor is located in the eastern section of the County near the Walton County border. The Harbins Area Trail will connect the new Palm Creek Park and Tribble Mill Park to the Harbins Park property. The primary trail route that will connect Tribble Mill Park to the Harbins property will follow the Alcovy River. This trail will run in an easterly direction from Tribble Mill Park along Tribble Creek to the Alcovy River, where the trail will run in a southeasterly direction to the Harbins property. Just before the trail reaches the Harbins property, Palm Creek intersects with the Alcovy River providing a trail route to reach Palm Creek Park. The connector trail will run in a westerly direction from the Alcovy River Trail to Palm Creek Park.

A second trail option between the Harbins property and Palm Creek Park is located farther north of the Palm Creek Trail connector. A tributary stream of Palm Creek provides a trail route that will enter the Harbins property on the northwestern side of the property, north of the intersection of New Hope Road and Luke Edwards Road. This route runs through primarily undeveloped properties and will provide a trail loop option between Palm Creek Park and the Harbins property. Once the trail is on the Harbins property, the trail continues in an easterly direction following a tributary of Cedar Creek. The trail then continues to a point where it intersects a utility corridor. The trail then continues in a southerly direction and intersects with the Alcovy River main trail. Many additional loop options will be possible on the Harbins property.

The proposed trail from Tribble Mill Park to the Harbins property crosses Callie Still Road. The Palm Creek Branch connection crosses only New Hope Road. The trail loop option connecting Palm Creek Park to the Harbins property will cross Luke Edwards and New Hope Roads to reach the property and cross Indian Shoal Road and Luke Edwards Road a second time inside the property boundaries to complete the loop. Harbins Elementary School can be connected to the park property via a proposed bicycle lane on New Hope Road.

### *Norris Lake/ Yellow River Trail*

This trail corridor is located in the southeastern corner of the County. This corridor is 6.5 miles long and will connect Yellow River Park to the recently purchased Norris Lake Park site and Lenora Park. The route will connect Annistown Elementary and Partee Elementary schools to the parks, using an overland route in an existing power line. The

trail starting at Annistown Elementary will run southeasterly in the power line and cross through Yellow River Park in two locations. At the northeastern corner of the park, the trail will go in an easterly direction and cross Centerville Highway, continue east crossing Lee Road and continue in the road right-of-way for approximately 1000', connecting to the Norris Lake Park property. The trail will then follow No Business Creek to a point where it connects with the Doc Moore Branch tributary, continuing in an easterly direction to Mark Livsey Road.

The trail now runs in a northerly direction, crossing undeveloped property, crossing Rosebud Drive and continuing to Lenora Church Road and into the park. The entire 6.5-mile route is off-road trail with the exception of the last 0.6 miles which would be an on-road trail. This route has a total of four roadway crossings. A total of 42 parcels of land are crossed with this trail. Of the total, 28 are undeveloped, six have improvements valued at \$1 to \$100,000 and eight have improvements valued at \$100,000 to \$300,000. The route passes three existing lakes. The number of properties can be reduced if the trail is routed through Yellow River Park rather than a section of the power line corridor.

If the trail is continued north of Lenora Park approximately 1.1-miles, Norton Elementary School can be added to the system. This section of trail would cross a total of 16 properties. Eight are undeveloped, three have improvements valued at \$1 to \$100,000 and five have improvements valued at \$100,000 to \$300,000 dollars. The improved properties are developed subdivision lots.

#### *Bay Creek Trail*

The Bay Creek Trail starts at Tribble Mill Park connecting to Bay Creek Park and ending at Vines Botanical Garden. This route is approximately 3.5 miles and connects three schools to the parks. Starting at the eastern park boundary just north of Ozora Road and running east, the trail crosses through several undeveloped properties at a point where it intersects with Ozora Road just above the Ozora Road and Chandler Road intersection. The trail will then run along Ozora Road and connect to McConnell Middle and Grayson Area Elementary schools. Running across the Grayson Area Elementary School property, the trail will cross several large residential lots, crossing Camp Mitchell Road and connect to Bay Creek Park. After running through the park, the trail continues in a southern direction across undeveloped property and crosses Logenville Highway and continues on to Grayson High School. After crossing through the school property, the trail terminates at Vines Botanical Garden. Several sections of the trail follow unnamed tributaries of Bay Creek and a section runs along Bay Creek.

The trail crosses a total of 13 properties, eight are undeveloped, one has improvements between \$1 to \$100,000, two have improvements between \$100,000 to \$300,000 and two are school properties with improvements over \$300,000.

### *Ivy Creek Trail Route*

Located in the northern part of the County, the Ivy Creek Trail connects George Pierce Park and the Suwanee Creek Trail to Bogan Park. The section proposed as the pilot project would run from George Pierce Park to the Mall of Georgia. The trail, starting at George Pierce Park, runs southwesterly along Ivy Creek, crossing Westbrook Road and meandering through an existing residential area and continues to Interstate 985. The trail crosses under Interstate 985 adjacent to Ivy Creek, continuing along the creek in an easterly direction. The trail travels primarily through undeveloped property and crosses continuous under Woodward Mill Road and Buford Drive. As it passes just south of the Mall of Georgia at Mill Creek, the trail terminates at Mall of Georgia Boulevard.

The trail connects to Suwanee Elementary School via the Suwanee Creek Trail. Rock Springs Elementary School connects by either crossing under Interstate 85, or following Buford Drive over Interstate 85 to Rock Springs Road via a trail developed in a utility easement. Once the trail reaches Rock Springs Road, a road-based trail connection would connect to the school.

## 6I. Phase 1 Implementation Plan and Cost Estimates

### *Harbins Alcovy River Trail*

It is recommended that the Harbins Alcovy River Trail be developed as a Phase 1 pilot project for the greenway system. This trail system can accommodate both hard surface multi-use trails and equestrian trails within the same corridor. The three parks that will be connected are large and suitable for internal equestrian trails and other support facilities required to accommodate equestrian programs. There is also space within the Harbins property to support non-paved bicycle trails. This pilot project will be one that offers a natural setting with limited suburban impact at this time.

It is recommended that along the Alcovy River, the entire floodplain and a 100' right-of-way be acquired for development of the trails. Along Palm Creek, Tribble Mill Creek and all tributary creeks used as trail routes, the entire floodplain and a 100' right-of-way should be acquired for development of the trails. Where the trails leave stream corridors and proceed across upland property, it is recommended that a minimum 50' right-of-way be acquired for the trails. The multi-use trail should be a 12' wide asphalt surface with grades meeting the current recommendations of the Americans with Disabilities Act (ADA) and the latest edition of the *Guide for Development of Bicycle Facilities* published by the American Association of State Highway and Transportation Officials (AASHTO). Paved trails should be routed to known wetlands and cultural resources to minimize impact on natural systems. The trails should have trash cans, bicycle racks and proper mapping to identify the routes at all trailhead access points and, as needed, along the trail. Benches should be provided at appropriate intervals and at trailheads.

Equestrian facilities should include trail routing maps when trail access points for equestrian trails are separate from paved trails. Equestrian trails should be compacted earth surface with horizontal and vertical clear zones for rider safety. Equestrian trails should be kept at a minimum of 10' of horizontal separation from paved trails. When less than 10' of horizontal separation is possible, a three-rail horse fence shall be installed between the two trails.

Both trails should have mile markers installed at .25 mile intervals to aid in locating trail users in case of emergencies. All stream crossings shall be by bridge or boardwalk on paved trails and at grade on equestrian trails. Regulatory and informational signs shall be installed on both trails on an as-needed basis.

Trailhead parking lots should be provided at access points along roadways and within the parks. Due to the special needs of horse trailers, it is recommended that all equestrian access points with trailer parking be located within park properties. A minimum of 24 parking spaces is recommended at trailheads without trailer parking and 48 parking spaces where trailer parking is provided. At major trailheads within parks, parking for 48 cars and 24 trailers is recommended as a minimum size. Where

combined trailhead parking lots are developed, the standard Gwinnett County Parks and Recreation small restroom building with a water fountain is recommended. It is also recommended that a small playground and standard octagonal picnic shelter be provided. The pavilion can serve as a staging area for special trail events and also be a rental structure for the County.

### *Ivy Creek Greenway*

The second Phase 1 pilot greenway that is recommended is the section of the Ivy Creek Greenway that will connect George Pierce Park with the Mall of Georgia. This section of trail will have a more suburban feel and will build upon the existing greenway system started by the City of Suwanee. A new dedicated trailhead should be constructed in George Pierce Park as the starting point of the Ivy Creek Greenway. The trailhead should accommodate a minimum of 48 cars. A playground and small restroom should be provided at the trailhead. The greenway will exit the park along Ivy Creek and should be developed in a minimum 50' right-of-way at the back edge of the floodplain where possible. When existing residential properties are adjacent to the floodplain and the trail would run close to the existing residences, the trail should be developed within the floodplain.

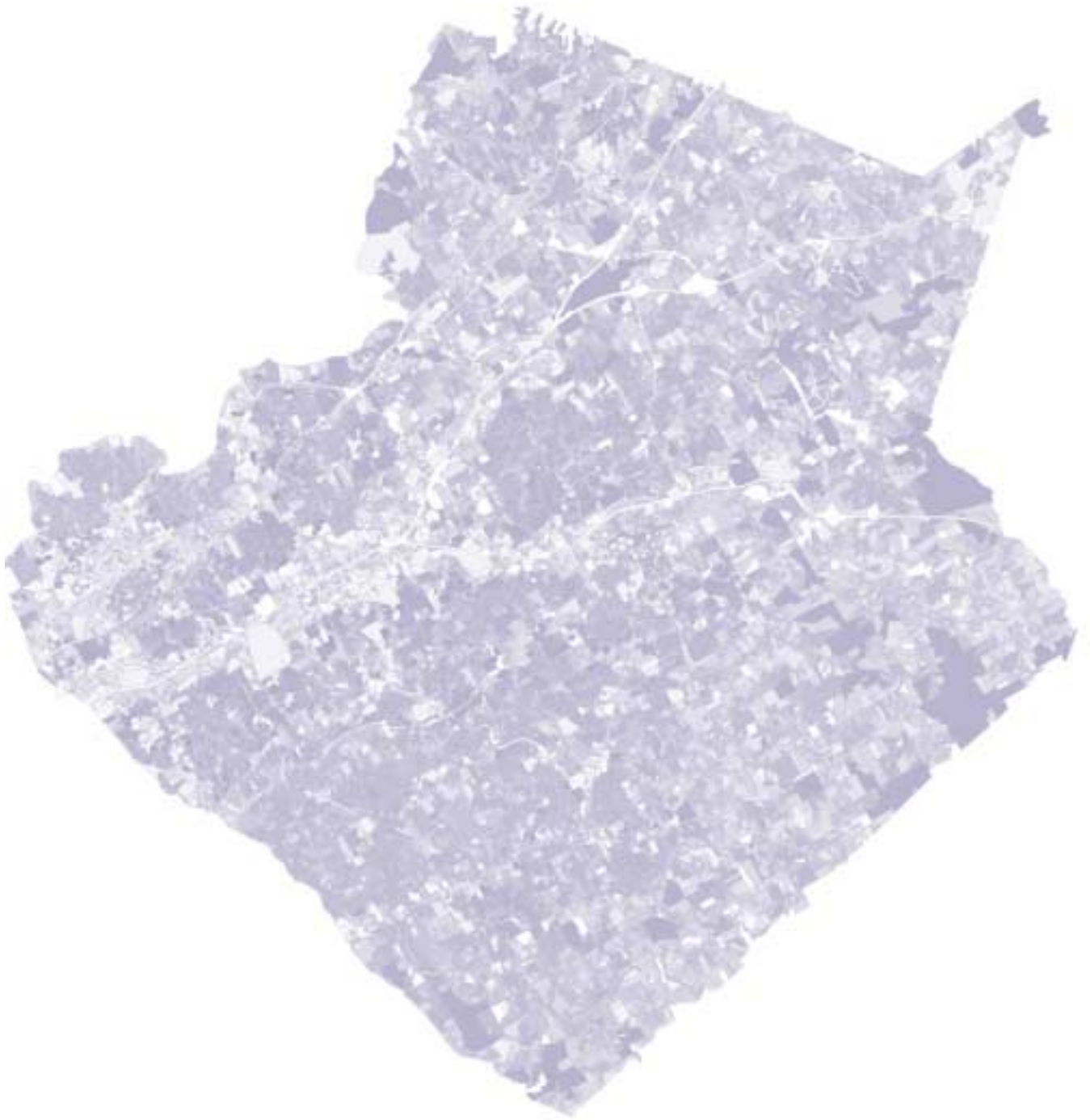
At Interstate 985 a tunnel under the interstate should be developed to accommodate the trail. The tunnel should include proper lighting to provide a safe and pleasant user experience. Once under the interstate, the trail will cross the F. Wayne Hill Water Resources Center property and no right-of-way will be required. The trail should be constructed on the east side of Ivy Creek between the creek and the interstate to minimize security concerns for the treatment plant. If desired, a security fence can be constructed on the west side of the creek to prevent access to the treatment plant. If security fencing is limited to directly adjacent to the treatment plant, a second trail route should be developed in the future on the west side of the creek to take advantage of the wooded areas around the plant. From this point to the mall, the trail will follow the creek, crossing an existing bridge and continuing to the Mall of Georgia.

Commercial areas located on Old Highway 20 adjacent to I-985 can be connected to the trail with a small spur trail that follows Ivy Creek. The spur trail would tie to the main trail where the main trail leaves Ivy Creek and continues to the treatment plant entry trailhead. This trail spur will serve as the future route around the mall to allow the trail to continue on to Bogan Park. Sidewalks will be required along Old Highway 20 to reach Buford Drive and crosswalks and traffic signals will be required for a safe pedestrian crossing. Once under Buford Drive, the trail will be allowed to leave the roadway and return to a multi-use trail section following Ivy Creek.

During the development of construction plans for the Ivy Creek Trail, the owners of the Mall of Georgia should be recontacted regarding internal pedestrian circulation options on mall property. It will be important to have connections across mall parking areas to the sidewalks and trails developed by the County.

A trailhead should be provided near the entry to the F. Wayne Hill Water Resources Center in Phase 1 of this project. On this project, this will be the second access point to the trail with the other being George Pierce Park. The two trailheads will be approximately 4 miles apart. If vehicular access is allowed to penetrate into the treatment site and the option of loop trails on the property is approved, a trailhead near the southern end of the property will be needed in the future. This would provide a total of three trailheads and the distance between trailheads will be reduced to approximately 2 miles. Options for a trailhead between George Pierce Park and I-985 are limited due to existing residential developments and few cross roads. If new cross roads are developed in this area in the future a small trailhead adjacent to the new road would be desirable for neighborhood access to the trail.

# Appendices



# Appendix A

## Appendix A: Public Comments and Results of Citizens Steering Committee Workshop

Comments made during the various public sessions are as follows:

- Bright Water subdivision is a local conservation development.
- Dave Rosselle's group at Bright Water could protect their lake with a conservation easement.
- Coordinate with other efforts such as: Bike plan, need for sidewalks, County wide comprehensive transportation plan, school system and their plans (they are planning 18 new schools in the next 5 years), Clean Water Act, Boy Scouts and Adopt a Stream.
- Sidewalks, sidewalks, sidewalks!
- Ivy Creek at Mall of Georgia – integration of greenspace and bikeways or any other plans that have been done. Ivy/Mill Creek is in progress.
- Need more smaller parks within walking distance– passive and green
- Consider equestrian trails and activities.
- Downtown Atlanta to Stone Mountain Path – can we link to it with Yellow River Park?
- Connection between facilities for bikes, horses and walking should be provided to:

Schools	Parks	Public Facilities
Libraries	Shopping	
Neighborhoods	Sidewalks	
Churches	Bike Lanes	
- Preserve greenspace in new developments, Not all greenspace has to be public land.
- Conservation Easements on private property = greenspace. Promote conservation easements.
- Growth can be beneficial but we have to stay on top of it – find the open space opportunities.
- Greenway = Spoke, Greenspace = Hub
- How does greenspace affect the value of the property? This needs to be an identifiable amount.
- Incentive programs for open space are needed.
- Project team should meet with developers regarding open space.
- Bold Spring/Luke Edwards remain greenspace.
- Change zoning to coincide with greenspace preservation.
- People in Gwinnett are lacking contact with streams. There are a lot of headwaters in Gwinnett County.
- Positive perspectives of a water quality based open space and greenway plan are enhanced wildlife and water quality, and reduced flooding, runoff and erosion.
- Additional requirements on buffers, definitive stream buffers –enforcement!
- Alcovy aquifer should be explored for water supply for Lawrenceville.
- Storm water alternatives and education of developers on better development techniques are needed.
- Ronald Reagan Parkway has ample ROW for re-forestation.
- Ronald Reagan Parkway is a good example of well-buffered road.
- Jones Bridge/Pinckneyville Arts Center sites need improvements.
- Volunteers who fish along the river are willing to help build river access.

- The question was raised, who do I call when I see a good piece of property? Chuck Flink made the suggestion of a 'Greenspace Director' for the County.
- Should look into the 'Rock Houses' , Dave Rosselle suggested. Also see [www.centerville.org](http://www.centerville.org)
- Establish criteria for acquisition tools for land to be acquired as well as land to be excluded.
- Framework for an overall system needs to be in place in order for acquisitions to make sense.
- 124&264 Corner Property for sale. Could be a park in Centerville. Within ½ mile of new library/Community Center, Shiloh Elementary, Middle and High Schools.
- Initiate option agreements, owners hold property until County has enough money to purchase. Local property tax breaks.
- Hurdles of conservation subdivision include the current mindset of a 1-acre home site market. Bootstrap incentives are needed.
- Condos and Townhouses are a foreign concept in Gwinnett County. Incentives are needed in order to tie communities together. There is a market for creative plans. Incentives to homeowners might include walking trails, greenspace, tax incentives, low cost for public services, and homestead exemption.
- Buy land where people live, not on the other side of the County.
- Check with the Chamber of Commerce regarding new business activity in the County.
- Improving infrastructure promotes growth.
- Incentives for businesses to keep some green and scenic qualities are needed.
- There are very few existing impact fees. Impact fees can be used to pay the interest on bonds.
- SPLOST funds to existing areas – restoration initiative, Impact fees!
- Need multiple funding sources, fund preservation incentives, use SPLOST to buy TDR's.
- There is a need for concurrent amendments to ordinances.
- New TDR legislation is in the works.
- Regulations need to be enforced.
- Lake Lanier Homeowners Association needs to be contacted regarding open space.
- New residents should pay their fair share.
- Need to change Georgia law that allows local governments to take/condemn land that has been protected in perpetuity.
- This plan should affect development standards; clear cutting, etc...Put higher value on trees.
- Site preparation (clear/grub) should not be allowed to begin until construction is scheduled to begin.
- Gwinnett County needs a citizens review board
- There is a distrust among citizens of County government.
- Gwinnett County needs smart growth.
- Distributing flyers in malls, stores, and movie theaters would help publicity of this project.
- Investigate the Path Foundation.
- Property protection
- Good school education site for outdoor lab.
- Need a population density to park land balance as well as projected populations and growth. People served per acre?
- Increase the density in the areas already urban.
- Abandoned and operational railroad corridors.
- Complete mapping of floodplains.
- Look at Hwy. 78 corridor from DeKalb County line to Snellville.

- Consider utility easements as corridors
- Consider tunnels/overpasses for safe road crossings
- Park Place area has huge parking lots and lake businesses that cannot go east.
- Purchase land along Yellow River.
- Land is less expensive in Snellville (zip code 39003)
- Need to redevelop areas along Hwy 78 rather than continuing to consume undeveloped property.
- Need redevelopment incentive.
- Anniston Road needs a buffer to prevent destroying homes and creating another Hwy. 78.
- 53 to 56 acres near Norcross
- How can we access land?
- Need improved access point for fisherman to access Chattahoochee River at Old Pinckneyville Arts Center.
- North Georgia Trout Online (NGTO) is a group willing to volunteer to work along river and building access facilities.
- Need access for boats (non-motorized)
- East Jones Bridge is overused by river users causing erosion and other problems.
- Need to purchase greenspace in highly developed areas now target largest tracts.
- Historic and cultural resources need to be mapped and included in the plan.
- Watson Farm is the second home in Centerville. It is a historic site that is for sale and should be protected by the County.
- Preservation and restoration with and without access.
- Ecological concerns/ corridors, restoration to native plant material, get rid of invasive, non-native plant material.
- Preservation incentives.
- Permanent Protection. Protect what has already been acquired.
- Little Mulberry Creek needs to be included in the study.
- Visible component to landscape ordinances should be implemented.
- Scales Road between churches – "old house" 10-20 acres? Consider purchasing.
- Poole Mountain would be good property, has cultural resource site or historic farm sites.
- Retain timber and wooded areas and farms to protect views.
- Mass tree removal is a problem. Tied to storm water drainage requirements.

## **Citizens' Steering Committee Workshop Results**

To supplement the public input, an encumbered Citizen's Steering Committee was appointed by the County Commission. The Steering Committee has met on a regular basis throughout the planning process to provide feedback to the design team. A full day workshop was held with the Steering Committee to provide specific input on questions generated by the public meetings. The Steering Committee prioritized their responses on each group of issues.

Prior to the Citizen's Steering Committee Workshop held in May, 2001 the planning team summarized the results of public and departmental input. The team then used these suggestions and comments to create a questionnaire designed to clarify issues

related to the open space program. Questionnaires were filled out by each member of the Citizen's Steering Committee before the May 16<sup>th</sup> workshop. The questions, followed by the results, are presented below.

*Explanation of charted results:* Nine respondents were asked to assign a numerical value to each question in a set, with "1" signifying the most important. Each question's numeric position was then added to obtain the tally. Therefore, a lower tally signifies greater importance. Example: If nine respondents ranked a question as number 1 in importance, it would have a tally of 9. If the nine respondents ranked a question as number 11 in importance, it would have a tally of 99 and would be lower on the list of results. An asterisk (\*) and bold text are used to identify the top three choices in each set.

1. The following significant suggestions and issues have been identified in public meetings, workshops, and interviews. Please rank, in order of their importance to the success of the Gwinnett County Open Space program:

1. Educate the public on the benefits of open space.
2. **Develop incentives for preservation of open space.**
3. Hire a Gwinnett County Open Space Coordinator.
4. **Change zoning regulations to facilitate open space preservation.**
5. Protection of river and stream corridors.
6. Protection of historic and cultural resources.
7. Restoration of stream corridors already impacted by development.
8. Limit clearing of property prior to final plan approval and issuance of a building permit.
9. **Link open space to neighborhoods, schools, and public facilities.**
10. Improve interagency planning within the County to maximize open space benefits.
11. Improve enforcement of current development requirements.
12. Provide incentives for current land owners to retain land until the County can acquire the property.
13. Establish criteria for open space acquisitions.
14. Ronald Reagan Parkway is a roadway design model that should be copied.
15. Educate the development community that open space enhances property values.
16. Organize a Citizens' Advisory Group to advise on property selections.
17. Mixed Use developments (including retail, office and residential) should be promoted as a development alternative to increase open space.
18. Providing adequate security.

No.	Tally									Priority	
1.	15	1	12	3	1	9	7	11	14	73	9
2.*	4	1	10	1	1	3	6	6	2	34	1
3.	16	6	17	5	2	7	3	5	13	74	10
4.*	5	3	3	6	1	4	4	4	5	35	2
5.	11	3	8	8	1	1	8	1	11	52	4
6.	12	3	15	9	3	2	12	2	12	70	8
7.	10	4	7	10	1	6	10	12	4	64	7
8.	6	2	5	17	3	12	9	16	6	76	11
9.*	1	3	14	4	3	5	2	3	1	36	3
10.	9	2	4	14	2	10	1	13	3	58	6
11	8	3	6	18	2	12	5	18	15	87	14
12.	3	3	9	16	1	12	16	10	9	79	12
13.	2	5	1	7	2	8	11	8	10	54	5
14.	7	1	16	13		12	15	15	7	86	13
15.	14	7	11	2	2	12	14	9	16	87	14
16.	17	4	2	15	1	12	13	17	17	98	16
17.	13		18	11	2	12	17	7	8	88	15
18	18	8	13	12		11	18	14	18	112	17

Question 1 = "Clusters" (Several "Clusters" = No. 1)

*Additional Committee comments:*

- Create the incentives  
Create awareness (a.k.a. education)  
Incentives & Awareness  
Cause & Effect
- 1-Acre lot mindset = open space?
- Consumer benefits & taxes = ?  
(Easement = market via reduced homeowner association fees?)
- Implementation strategy = "Holistic" view of open space  
Coordinator  
+Funding
- #4 & #17 = cluster
- Mandate open space between land uses (E.G. mixed-use)
- Sewer – Significant issue – drives  
Large lots in east Gwinnett  
Infrastructure = solution

2. Rank the following land acquisition methods based on their potential for acceptance and success in Gwinnett County:

1. **Fee-Simple purchase by the County.**
2. Fee-Simple purchase by cities within the County.
3. **Incentive policies tied to zoning and development regulations.**
4. **Acquisition by, or donation to a land trust or other non-profit groups.**
5. Land donations to the County by for-profit businesses.
6. Land donations to the County by private land owners.
7. Purchase of Development Rights (PDR).
8. Voluntary Conservation Easements.

No.	Tally									Priority	
1.*	2	1	2	1	1	4	3	1	1	16	1
2.	4	4	2	3	1	8	3	1	5	31	4
3.*	1	2	1	2	1	3	1	5	1	17	2
4.*	3	6	4	4	1	2	2	2	1	25	3
5.	5	8	7	6	1	7	7	3	7	51	8
6.	6	7	6	5	1	6	4	3	8	46	7
7.	7	5	3	4	2	5	5	2	6	39	6
8.	8	3	5	4	1	1	6	3	4	35	5

*Additional Committee comments:*

- Fee simple (1, 2 & 4) Easiest to understand

3. Rank the following funding sources for acquisition of significant open spaces based on their potential for acceptance and success in Gwinnett County:

1. **Special Purpose Local Option Sales Tax (SPLOST)—Gwinnett County.**
2. Special property taxes levied by cities within the County.
3. **County General Fund.**
4. City General Funds.
5. Dedication of a County millage for acquisition of open space.
6. Private funds and donations.
7. Public/Private partnerships.
8. TEA-21 and other grants.
9. **Georgia Greenspace Program funds.**
10. Stormwater Utility.
11. Impact Fees.

No.												Tally	Priority
1.*	1	1	1	1	1	1	1	1	1	1	1	11	1
2.	6	2	6	10	11	5	9	9	7	6	7	78	9
3.*	2	5	3	3	5	2	2	2	3	3	2	32	2
4.	7	6	6	9	11	2	7	11	6	4	2	71	8
5.	8	2	1	7	1	5	11	10	2	2	4	53	4
6.	9	6	3	4	2	1	8	7	8	5	3	56	6
7.	3	7	2	5	2	2	4	8	10	7	5	55	5
8.	10	4	4	6	4	5	5	4	5	5	6	58	7
9.*	4	3	4	2	1	1	6	3	4	5	1	34	3
10.	11	8	6	8	5	5	3	6	9	8	9	78	9
11	5	9	5	11	1	5	10	5	11	9	8	79	10

*Additional Committee comments:*

+ Bonds

CID (community improvement districts)

? Impact Fees = Insignificant \$

+ Difficulty of implementation

- Private \$ + donations are happening now

4. The recreational activities listed below are permitted on Greenspace Program properties by Georgia statute. Please rank this list in order of importance:

1. Boating
2. Hiking
3. Camping
4. Fishing
5. Hunting
- 6. Running**
7. Biking
8. Birding
9. Environmental study
- 10. Picnicking**
- 11. Open play**

No.	Tally										Priority	
1.	10	7	2	6	10	9	10	8	10	6	78	10
2.	7	4	1	7	5	2	7	9	1	4	47	5
3.	6	6	2	9	6	10	9	10	9	7	74	9
4.	5	5	2	5	3	7	8	4	8	3	50	6
5.	11	11	13	11	11	11	11	11	11	9	110	11
6.*	1	4	1	1	1	1	1	1	3	1	15	1
7.	2	4	3	2	9	6	6	2	7	2	43	4
8.	8	2	4	8	1	8	5	6	2	8	52	7
9.	9	3	5	10	2	5	2	7	5	10	58	8
10.*	4	1	2	4	4	3	4	5	4	5	36	3
11.*	3	1	2	3	1	4	3	3	6	4	30	2

*Additional Committee comments:*

- Non-motorized boating. If that is understood; boating scores higher!

5. Please create a list of acceptable amenities (parking, trails, etc.) that are appropriate for development on Greenspace Program properties:

1. Grassed open area with sloped mounds (meadow)
2. Picnic tables
3. Trails (pervious/nature)
4. Pavilion
5. Restrooms
6. Improved, paved paths
7. Wooden boardwalk
8. Outdoor classroom
9. Learning stations
10. Trash cans
11. Nature-based attractions: zoo, museums, etc.
12. Signage (all kinds: interpretive, etc.)
13. Historic structures, interpretation, etc.
14. Porous parking (limited)
15. Benches/rest areas
16. Bike racks
17. Stream access points
18. Water fountains
19. Grills, etc. for picnicking
20. Vehicle access barriers
21. Camp sites
22. Playgrounds
23. Stargazing – compass/pad
24. Dog walk
25. Pier, dock, canoe launch

26. Bandstand, amphitheater
27. Vistas, overlooks
28. Pedestrian bridges over water features
29. Concession facilities?
30. Emergency call boxes

6. Is it appropriate to spend public funds on open space that will not have public access?

Yes    6.5 votes            No    3.5\* votes

\*No in Gwinnett, but public access can be extremely limited; e.g., McDaniel Farm!

Yes:

- Preserve pristine, natural land
- Protect water quality
- Protect wildlife habitat
- Public access not appropriate if too close to some residential areas.
- May not be feasible to provide access to new properties (may want to limit access need public education to sell the concept).
- Need to pursue a public purpose

No:

- If we buy it, we should at least provide access
- People who can't afford private parks need public lands
- We can always limit or manage access.

7. Please identify the kinds of properties that should not have public access:

1. Habitat for threatened or very sensitive species
2. Fragile ecosystems
3. Water resource protection areas
4. Dangerous areas
5. Archaeological and historic sites
6. Areas where restoration or habitat repair is needed
7. Stream corridors adjacent to existing subdivisions
8. Farmland
9. Vistas
10. Wetland banks

8. Please develop a list of the pros and cons for a public entity or a private organization to manage or protect open space within the County:

### **Manage - Public**

#### Pro:

- Funding options
- Public representation
- Citizen pressure and media attention for accountability

#### Con:

- Cumbersome process
- Political environment

### **Manage - Private**

#### Pro:

- Flexibility

#### Con:

- Limited funding
- No public influence
- No guarantees regarding use or protection

### **Protect - Public**

#### Pro:

- Greater resources
- Potential for com. involvement
- Community preference for public protection in some circumstances (esp. if public access)
- Govt. viewed as permanent
- Accountability

#### Con:

- Potential exposure to liability
- Concern about public access
- Lack of trust re: public officials
- GA law doesn't bind govt. to commitments

### **Protect - Private**

#### Pro:

- Ability to involve community
- Liability protection by statute
- Community preference to work in private entity
- Flexibility for homeowner's association in use of open space
- Providing a complement to County in program for holding easements on CSOS
- Appropriate entity for holding dev. rights when there are public access concerns
- Permanent protection
- Voluntary member base
- Held to national standards
- Conservation mission

#### Con:

- Limited resources
- Community apprehension over limited influence
- Concerns about survivability
- Limited representation
- Lack of public understanding

#### *Additional Committee comments:*

- Level of management required: impact on choice
- Types of activity and amenities anticipated = impact
- Open space ordinances will regulate activities – “Post it” and it is against the law
- Within Homeowner's Association – Letter to resident to cease and desist or a lien on their home is allowed by GA law
- Conservation Subdivision Ordinance = “General” and easement language = “specific”

# Appendix B

## **Appendix B: Purchase of Development Rights, Case Studies**

### **Howard County, Maryland**

*Howard County, located midway between Washington D.C. and Baltimore, was primarily rural until the “new town” of Columbia was built in 1966. Today, it wrestles with the expansion of both major cities and tremendous suburban growth, but is aided by a progressive state political emphasis on growth management.*

#### **a. Motivation for the program**

To support the agricultural community by helping to keep the land base available for farming, and by minimizing the impact of residential development in agricultural areas. Approximately 94,000 acres in the western portion of the county not currently served by public sewer and referred to as the “Rural West” in the General Plan 2000 document, are of highest priority.

#### **b. Mechanism for funding**

From 1989 to 1997, the PDR easement acquisition program was funded by two sources of revenue:

1. the Howard County Real Estate Transfer Tax Dedication – a locally imposed 1% tax on all real estate transfers. One quarter of the total dedicated to the PDR program
2. the Maryland Agricultural Transfer Tax – a 5% conversion tax paid on land that is no longer agriculturally assessed. County retains 75%, with 25% sent to state for use in PDR funding.

A unique aspect of this county’s program is its method of payment to landowners for the easements. This is done through an Installment Purchase Agreement, whereby the county pays the landowner the principal amount after 30 years. The county purchases and sells zero coupon bonds, 30 year maturity, to pay the principal, and pays the landowner tax-free interest semi-annually over the 30 year period, at a rate based on the current U.S. Treasury bond yield and not less than 6.5%. IPA’s can be transferred, and can provide deferral of capital gains taxes.

Because the IPA program is a general obligation of the county, an enabling ordinance is passed each fiscal year authorizing the amount that can be spent for easements that year based on projections of the above revenue sources.

#### **c. Length of time to develop program**

Unclear, but the original PDR program implemented by the Maryland Agricultural Land Preservation Foundation, a state program, ran from 1980 to 1988. The Howard County program with its Installment Purchase Agreement overlay (see d.) then replaced the state program. The IPA program itself was a 2-year process from idea to first purchases under the program.

#### **d. Program logistics/summary**

Land subject to agricultural preservation easements, which are voluntarily offered for sale or donated to the county by the landowner, may not be developed in perpetuity for purposes other than agricultural uses; used for commercial, industrial or residential purposes; or subdivided (some opportunity for 50 acre subdividing allowed).

The county may accept donations or buy easements on land that meet specific criteria as outlined in the Howard County Code Sec. 15.506 (developable, of a certain size, and meeting soil criteria). If buying, the Board considers applications in batches, and advertises the relevant dates. Applications are submitted to the administrator by the landowner accompanied by a nonrefundable application fee. If all eligibility requirements are met, the administrator adds further evaluation and prepares a LESA (land evaluation/site assessment) score and pricing formula score on the parcel. The pricing is a point-based formula outlined in the overall plan. This is submitted to the Board for consideration. The Board makes an on-site inspection of the parcel, holds a public hearing for comments, and then votes on further consideration. If approved, the Board determines the price to be offered.

All parcels in the batch are completed, and then ranked in priority. Offers are made to landowners in order of ranking. If the landowner agrees, the Board notifies the county executive in writing. The county executive then approves/disapproves the offer, and cannot modify it.

If all monies have been committed before all offers are made in the batch, the Board can recommend that some or all of the remaining parcels be considered with the next batch.

***e. Who administers the program, and what are the administrative costs and funding source?***

The “Board” referenced in these notes is the Agricultural Land Preservation Board. This Board consists of 7 citizen members, all Howard County residents, with 3 of the members receiving at least 50% of their income from agriculture, and no member serving more than 2 consecutive terms. All members are appointed by the County Executive and confirmed by the County Council. The administrator (a member of the Department of Planning and Zoning) shall be executive secretary of the board. The DPZ shall also provide staff services to the board.

The board shall meet at least once every 3 months. Five votes are necessary for recommendation of purchases.

***f. Any legislation required for the PDR program to be implemented?***

Originally, a parcel had to be designated in a state agricultural preservation district before an easement could be purchased. That law was repealed in 1993.

Also not required but helpful is that Maryland allows a partial property tax rebate for property on which development rights have been sold under the PDR program.

***g. Amount of land protected by program and future goals***

As of July 1999, 12,453 acres were protected under the county PDR IPA plan. (The earlier state program protected an additional 3937 acres). The goal for fiscal year 2000 was an additional 2500 acres, with the ultimate goal of 30,000 total acres in farmland preservation or other preservation programs. As of July 1999, the county had 21,040 of Rural West lands permanently protected in agricultural, environmental, historic, or other easements.

***h. Other tools used in conservation effort***

Agricultural preservation is also obtained through two additional tools:

1. Dedication from exchange option – essentially a transfer of development rights program whereby a transfer of residential density occurs from land in the Rural Conservation district to one in the Rural Residential zoning district. Sending parcels are left with one development right (one house) and covered with a restrictive agricultural or environmental easement.
2. Dedication for cluster development – conservation subdivisions are an option in the Rural Residential zone, and required in the Rural Conservation zone on parcels over

20 acres. A density of one lot per 4.25 acres is applied to the site to calculate total yield. These lots must then be roughly one acre in size and laid out to accomplish the goal (open space, agricultural preservation or environmental conservation).

These tools tend to be used more for open space and environmental preservation, with PDR's the prime tool for farming preservation. However, from 1997 to 2000, they were the only tools available for farmland preservation as well given the temporary discontinuation of IPA funding (see i.)

***i. Success stories or obstacles?***

The Installment Purchase Agreement program won a Government Finance Officers Association's prestigious Award for Excellence in financial management, and rejuvenated a PDR program that had come to a standstill in the 1980's as development spread west and catapulted land values beyond the means of the county to purchase easements conventionally. The IPA program gave farmers an incentive to sell easements at less than their appraised value.

However, the funding sources for the program put a cap on the amount of preservation efforts possible. The City Council authorized \$55 million worth of IPA commitments bases on projections of revenue from the funding sources. Unfortunately, this amount was reached in fiscal year 1996, and no easement purchases can be made until a sufficient surplus exists. Until then, other methods of preservation as described above have been employed.

Fortunately, the County's General Plan 2000 called for a renewed emphasis on the PDR program, evidenced by its goals outlined in "g."

***j. Partnerships with state agencies or other organizations involved?***

An additional option for the protection of "areas vulnerable to sprawl development that can weaken an areas' natural resources, thereby jeopardizing the economic value of farming, forestry, recreation, and tourism", is available from the 1997 state of Maryland's Rural Legacy Program, a subset of Maryland's 1997 Smart Growth Act. Applications for consideration are submitted to the state, with ultimately the Board of Public Works designating the Rural Legacy Areas and approving grants for funding. Maryland Program Open Space dollars and general obligation bonds from the state's capital budget fund this program. During the first 5 years, \$110 - \$128 million will be committed to preserving 50,000 – 75,000 acres. Between 1998-2000, Howard County was designated to receive \$3 million to purchase preservation easements in the Upper Patuxent Headwaters Rural Legacy Area.

***k. Availability of written materials***

- "Howard County's Agricultural Land Preservation Program" document
- Subtitle 5. Agricultural Land Preservation section of the Howard County Code
- Agricultural Land Preservation Board Easement Price Formula Worksheet
- Various legal documents regarding the program
- Comprehensive Plan (General Plan 2000), specifically Chapter 3: Preservation of the Rural West available from county's website: [www.co.ho.md.us](http://www.co.ho.md.us)

***l. Contact information***

William Pickens, Program Administrator  
Department of Planning and Zoning  
Howard Building  
3430 Courthouse Drive  
Ellicott City, Maryland 21043  
(410) 313-5407

## **Sonoma County, California**

*North of San Francisco, Sonoma County encompasses over one million acres of hills, mountains, valleys and river drainages including the 1485 square mile Russian River Watershed. It is the 15<sup>th</sup> largest agricultural county in California, producing \$450 million worth of crops in 1998, with a major emphasis on vineyards. Strong growth pressures are also occurring in the county.*

### **a. Motivation for the program**

The purchase of developments rights is one element of a comprehensive strategy for the county to maintain a positive quality of life for its residents and for future generations. It assists the District in carrying out the 1990 voter approved measures for preserving agricultural and open space lands. This public measure was a result of dissatisfaction about losing open space to urban sprawl and a desire to preserve separation between the county's cities. The program is also applicable to California state law that requires each county and city to prepare an Open Space element as part of its General Plan that addresses how preservation of open space lands will be implemented.

### **b. Mechanism for funding**

In 1990, Sonoma County voters approved Measures A and C. Measure A established the Sonoma County Agricultural Preservation and Open Space District (whose boundaries are synonymous with the county's), while Measure C called for a ¼ percent sales tax over a 20-year period to fund agricultural preservation and open space acquisition. This provides an annual allocation of about \$13 million for the District's land conservation program.

### **c. Length of time to develop program**

Measures A and C were approved in February 1990, and the Open Space Authority followed in August of that year. The first Acquisition plan was adopted on December 15, 1992.

### **d. Program logistics/summary**

The elements of the PDR program and entire Sonoma county land conservation plan are found in its document, Acquisition 2000. The plan contains four acquisition categories: agriculture, greenbelts, natural resources, and recreation. Within each category, priority subsets have been developed. The District has developed maps of the categories and a computerized Graphic Information System that generates "property evaluation reports" and ranks the desirability of a property's acquisition against multiple factors. All properties submitted to the District by an easement application are evaluated and visited. A list of factors that would bode favorably or negatively toward acquisition of the easement is found in the Program Goals section of the Acquisition Plan 2000.

While the PDR program is voluntary, the County is proactive in soliciting participation, particularly in the priority preservation areas.

### **e. Who administers the program, and what are the administrative costs and funding source?**

Sonoma's program is one of the more complex in terms of administration. The District's Board of Directors (which are the County Board of Supervisors) has appointed 17 members to an Open Space Advisory Committee. This committee is responsible for advising the District Board on policy matters, and making recommendations for proposed land and easement purchases. The Sonoma County Open Space Authority is an independent entity also created by the Board of Supervisors that is responsible for levying the sales tax. It has the responsibility to ensure that the District's acquisition plan and each conservation project is consistent with the expenditure

plan. The Board of Directors has the responsibility for ensuring that the District's acquisition plan and individual projects are consistent with the 1989 Sonoma County General Plan. Thus, the program involves coordination among the District's Board of Directors, the Open Space Authority, and the Open Space Advisory Committee.

***f. Any legislation required for the PDR program to be implemented?***

The District is a dependent Special District formed under Government Code Section 65582 and Section 5500 et seq. of the California Public Resources Code.

***g. Amount of land protected by program and future goals***

By the end of 2000, the District had completed 80 land conservation projects and protected over 27,000 acres through easements or fee acquisition at a cost of \$50 million. The majority of these were easement purchases. The goal is to double this amount over the next 5 years.

***h. Other tools used in conservation effort***

Besides purchasing development rights, the District also has the authority to purchase land in fee, enabling the district to respond quickly to open space opportunities. This is primarily used for public purposes, such as a park or wildlife preserve, but can also be used when necessary for agricultural and other open space preservation.

Urban growth boundaries have also been adopted in the majority of the county's nine incorporated cities.

***i. Success stories or obstacles?***

The County has protected one of the largest amounts of acreage found across the country, and is one of a few to employ a sales tax for funding of the program. However, the referendum issued a 20-year limit on the tax and will have to be reapproved by voters or another revenue source found before the year 2010.

***j. Partnerships with state agencies or other organizations involved?***

The County actively seeks partnerships with public agencies and private organizations to complete significant acquisitions. It seeks matching funds from foundations, state and federal agencies and other conservation partners to leverage its funds. It also provides matching funds to cities within its boundaries for conservation programs.

***k. Availability of written materials***

The town has an excellent website of materials about its program: [www.openspaceplan.org](http://www.openspaceplan.org)

***l. Contact information***

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## **Town of Dunn, (Dane County), Wisconsin**

*Dunn is a small town of 5500 people located at the southern edge of Madison, the capital of Wisconsin. It was one of the first towns in Wisconsin to develop a comprehensive plan in the 1970's and continues to be innovative in land use issues. Over 8600 acres of the town are still dedicated to agriculture.*

### **a. Motivation for the program**

To slow growth, protect important natural and historic areas, and maintain a vital farming community. Prior reliance on the town's Land Use Plan to achieve these objectives had proved insufficient. 3000 acres of farmland had been converted out of agriculture from 1978-1994, and the town's borders were prime targets for annexation from quickly growing surrounding communities. A volunteer committee was formed to explore options for open space and farmland protection. PDR's were chosen as an ally against changes in political leadership, as well as effectively integrating farmland/natural resource protection with agricultural economics.

### **b. Mechanism for funding**

In 1996, town residents approved a property tax increase raising the mill rate \$.50 to fund the program. However, this source provides the ability to purchase only 80-100 acres per year. The town also seeks donations and grants, and has received \$615,000 in federal matching grants from the United States Department of Agriculture – Natural Resource Conservation Service. Voters approved a \$2.4 million bond initiative in April 2000. The existing PDR tax will make payments on the bond, allowing an infusion of cash into the PDR fund without any increase in taxes.

### **c. Length of time to develop program**

Three years from conception of volunteer committee to approval of first tax levy for funding.

### **d. Program logistics/summary**

An interested party submits a nonbinding preapplication form to the Town Hall. Members of the Land Trust Commission will then discuss the PDR program with the party and obtain site feature information. These are done in batches. Once all applicants have been contacted, the LTC ranks the properties according to a documented criteria formula. Those with the highest scores will be asked to meet again with the Commission to discuss terms. Flexibility for the landowner is supported. Once general terms have been identified, the town has an appraisal conducted for the value of the easement. This is the difference between the existing agricultural use and the value of the site at its maximum developable state. Negotiations then occur. Prior to the final transaction, a Special Town Meeting is held to authorize town purchase of the easement.

### **e. Who administers the program, and what are the administrative costs and funding source?**

The Town of Dunn Land Trust Commission is responsible for general supervision of the Open Space (PDR) program. It solicits interest in landowners for application to the program, recommends selection criteria and potential specific sites for easement purposes, recommends changes to the overall program as necessary, and conducts public communications meetings.

It consists of 7 members: The chair of the town's planning commission, a representative of a Dane County nonprofit conservation organization, four members and Commission Chair nominated by the Town Chair, with at least 3 members electors of the town.

The Town of Dunn's Board of Supervisors, however, is the entity with the authorization to acquire conservation interests or make payment to nonprofit conservation organizations for rural preservation purposes.

The 2000 town budget shows the following costs of administration of the program:

1. \$18,000 salary
2. \$18,000 operating expense
3. \$15,000 endowment for future enforcing and monitoring expenses

***f. Any legislation required for the PDR program to be implemented?***

Wisconsin has adopted the Uniform Conservation Easement Act, which allows governmental and charitable organizations to buy development rights. The town adopted ordinance No. 4-3 to establish the PDR program and create the Town of Dunn Land Trust to administer it.

***g. Amount of land protected by program and future goals***

From 1997 through 2000, 995 acres have been protected. Contracts are in negotiation on an additional 644 acres, with applications for 1406 acres pending.

***h. Other tools used in conservation effort***

None.

***m. Success stories or obstacles?***

The town is the only municipal PDR program in the state, and has responded to over 200 requests for assistance and information from other government officials and citizens. It received the Renew America award in 2000 for its PDR program. It demonstrates the strong commitment of the town's residents to the goals of this program.

***n. Partnerships with state agencies or other organizations involved?***

The town attempts to leverage its resources by partnering with the USDA-NRCS, the Wisconsin Department of Natural Resources, and two local land trusts.

***o. Availability of written materials***

The town has an excellent website of materials about its program:  
[//userpages.chorus.net/towndunn](http://userpages.chorus.net/towndunn)

***p. Contact information***

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## Lancaster County, Pennsylvania

*Lancaster covers 603,000 acres in southern Pennsylvania, with two-thirds of this in agriculture in 1992. It contains some of the most productive farmland in the U.S. About 30% of the farmers belong to the Plain Sect community (Amish, Mennonite, and Brethren). With a population of 422,000 in 1992, it is projected to increase to 600,000 by 2020. Greater Harrisburg, Wilmington, Delaware, and Philadelphia are all within a 45-minute drive from its borders.*

### **a. Motivation for the program**

The county generated over \$750 million in farm gate sales in 1993, largest in the northeast U.S. Over 50% of the county has Class I and II soils, considered prime farmland. The county's open space contributes to a thriving tourist industry, with its role as a vital Dutch region. However, in 1994, the county was rated by U.S. News and Report as one of the top ten booming areas in the U.S. The visible loss of farmland (a strong economic sector), loss of open space, and traffic congestion led to a residents desire to control growth.

### **b. Mechanism for funding**

The state Act 149 mentioned below (f) followed a 1987 referendum in which voters approved a \$100 million bond program to purchase development rights to farmland. The referendum passed 2 to 1. In 1994, program funding switched from bonds to a 2 cent a pack tax on cigarettes. This tax generates about \$21 million/yr.

The county's program started prior to the state initiative. It funded its first easements from the county general fund. After 1988, funding was made available to the county from the Pennsylvania Bureau of Farmland Protection. From 1989 – 1998, Lancaster received \$27.2 million for easement purchases. In order to receive these funds, the county first had to develop program guidelines approved by the State Agricultural Land Preservation Board, an appointed 17-member body. The allocation by county was determined by the appropriations made by each county and by the money appropriated by all counties with approved guidelines. Lancaster appropriated \$1 million/yr, more than any county in the state. It raised these funds through the sale of general obligation bonds and from the county general fund.

### **c. Length of time to develop program**

Two years from creation of the Agricultural Preserve Board to the first donation of an easement. An additional two years until the county purchased its first easement.

### **d. Program logistics/operating procedures**

The program operates in the same general manner as other PDR programs. However, in determining which sites to purchase easements on, the Preserve Board uses two policies to guide its selection: preservation of contiguous farms, and preserving farmland that creates an "urban boundary". The first policy is intended to help maintain a core base of farming large enough to keep agricultural support business economically viable, and minimizes the potential for farm/nonfarm conflicts. The second helps to reinforce the urban boundary program (see h).

### **e. Who administers the program, and what are the administrative costs and funding source?**

In 1980, the Lancaster County Commissioners appointed a nine-member Agricultural Preserve Board to develop and administer farmland protection programs, including the procurement

process. In 1983, the Preserve Board added staff and became a county department. Today, it has a staff of four, including a Director, two farmland preservation specialists, and a secretary.

***f. Any legislation required for the PDR program to be implemented?***

The state of Pennsylvania Act 149 in 1988 created a joint county-state conservation easement purchase program, which created the funding impetus necessary for counties to realistically provide this program.

***g. Amount of land protected by program and future goals***

From 1982 to 1998, the county purchased 229 perpetual easements covering 20,367 acres. An additional 1965 acres are protected from donated easements.

***h. Other tools used in conservation effort***

Agricultural preservation is also obtained through three additional tools:

1. agricultural zoning – most townships employ a zoning standard of one building lot of up to two acres for every 25 acres owned
2. agricultural security areas – the landowner can voluntarily enroll his land (250 acre minimum) into this program, with township supervisor approval. No land use restrictions are imposed, but the township agrees: not to enact nuisance ordinances involving farming practices; that the landowner has greater protection against eminent domain; and the landowner becomes eligible to apply to sell their development rights.
3. urban growth boundaries – geographical boundaries are drawn through an agreement by a city and surrounding townships with the aim of providing enough buildable land for the next 20 years within the boundary. Urban services are not provided outside the boundary. Boundaries can be changed upon review every 3-5 years. 20 boundaries had been formed by 1998.

***h. Success stories or obstacles?***

When the program first started in 1982 and without a viable funding source, the Board was only offering \$250 and acre for perpetual easement or 25 year term easements. This was well below the value of the permanent development rights, so most landowners opted for the 25-year term. In 1988, however, the Board authorized the use of appraisals to determine the easement value, and the average price per acre jumped to \$2000, resulting in better program success.

In fact, since 1991, the amount of farmland preserved through conservation easements has slightly outpaced the number of farmland acres lost.

The psychology of farmers seeing others being conserved has also helped to convince some of remaining in farming.

One obstacle is that in Pennsylvania, there are no property tax advantages to landowners selling an easement.

***i. Partnerships with state agencies or other organizations involved?***

PDR programs in Pennsylvania are combination state-county efforts. The more a county is willing to invest in the program, the more funding it receives.

The county also has a cooperative agreement with the Lancaster Farmland Trust, a private, nonprofit organization. Two farms have been jointly preserved.

***j. Availability of written materials***

Meeting minutes of the Agricultural Preserve Board are available from the county website:  
[www.co.lancaster.pa.us/Agpresrv.htm](http://www.co.lancaster.pa.us/Agpresrv.htm).

Most of the information for this summary was found in a paper by Tom Daniels, State University of New York at Albany, "*The Purchase of Development Rights, Agricultural Preservation and Other Land Use Policy Tools: The Pennsylvania Experience*".

**k. Contact information**

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# Appendix C

## *Appendix C*

### **Tax Benefits**

The majority of conservation easements qualify for a federal income tax deduction as protecting “open space pursuant to a clearly delineated governmental conservation policy”. Gwinnett County should ensure that its comprehensive land use plan, as well as ordinances, clearly delineate its conservation policy. IRS regulations §1.170A-14 (d)(4)(iii) indicate that a “general declaration of conservation goals by a single official or legislative body is not sufficient. However, a governmental conservation policy need not be a certification program that identifies particular lots...This requirement will be met by donations that further a specific, identified conservation project, such as the preservation of land within a state....”

The regulation goes on to state that “acceptance of an easement ... tends to establish the requisite clearly delineated governmental policy, although such acceptance, without more, is not sufficient. The more rigorous the review process by the governmental agency, the more the acceptance of the easement tends to establish the requisite clearly delineated governmental policy.... If [a governmental body] accepts such gifts without a review process, the requisite clearly delineated governmental policy is not established.” While the adoption of a County greenspace plan will tend to establish the requisite policy, the County must adopt a rigorous review process, incorporating factors from the list above and others as appropriate to ensure that tax deductions remain an incentive for donations of easements.

Further, a deduction for contribution of an open space easement or similar restrictive covenant is predicated upon a significant public benefit accruing from the donation, whether it is “scenic” or “pursuant to governmental policy”. Regulation §1.170A-14(d)(iv)(A) lists factors to be considered in the evaluation of public benefit. Inclusion of at least some of these factors in the County plan would facilitate review and deductibility. They are:

- (1) Uniqueness of the property to the area;
- (2) Intensity of land development in the vicinity of the property (both existing development and foreseeable trends of development);
- (3) Consistency of the proposed open space use with public programs (whether Federal, state or local) for conservation in the region;
- (4) Consistency of the proposed open space use with existing private conservation programs in the area, as evidenced by other land, protected by easement or fee ownership by organizations referred to in 1.170A-14(c)(1) in close proximity to the property;
- (5) Likelihood that development of the property would lead to or contribute to degradation of the scenic natural, or historic character of the area;
- (6) Opportunity for the general public to use the property or to appreciate its scenic values;
- (7) Importance of the property in preserving a local or regional landscape or resource that attracts tourism or commerce to the area;
- (8) Likelihood that the donee will acquire equally desirable and valuable substitute property or property rights;
- (9) Cost to the donee of enforcing the terms of the conservation restriction;
- (10) Population density in the area of the property;
- (11) Consistency of the proposed open space use with a legislatively mandated program identifying particular parcels of land for future protection.

A rigorous review process will tend to establish significant public benefit as well as delineated governmental policy, although the two are separate requirements. Because this determination is central to both requirements, it is strongly recommended that a stepwise review process be implemented by specific ordinance and that the process follow predetermined criteria for acceptance.

The exclusivity requirement is separate and includes the requirement that the conservation purpose be protected in perpetuity. Regulation §1.170A-14 requires, among other things, that the instrument transferring the easement or other right must provide that the property will be preserved, and that the conservation purposes are to be protected, in perpetuity.

The deed must also provide that the donee (County) will hold the property interest for the conservation purpose stated in the deed and will be *prohibited from transferring it* except to other qualified organizations that will hold the interest exclusively for conservation purposes. (This also ensures that the Governor's Greenspace requirement of protection in perpetuity is met.) To protect the donor's deduction, the County should require that the deed contain such restrictions. Further, the terms of the restriction must be such that future development or intrusion that would interfere with the governmental conservation policy is precluded.

#### *Information on Tax Benefits*

a. Income Tax Deductions - Section 170 of the IRC allows income tax deductions for individuals who donate property, including land, to "political subdivisions" such as counties "only if the contribution or gift is made for exclusively public purposes." The deduction is allowed only when the taxpayer's entire interest in the property (fee simple) is transferred, with some exceptions (such as for the donated conservation easement described below). To help ensure that the deductions are available for greenspace contributors, the County should make clear that such donations are for exclusively public purposes – Melbourne Beach, Florida, has helped meet the requirement in a different context by finding, as a part of their city Code, that donations to a library fund are exclusively for public use pursuant to the IRC. The ordinance reads:

The legislative intent of this article is to create a trust fund for the donation of funds by the general public to provide expanded library programs, books, and services, and to provide for the funding of the purchase of additional library programs, books, and services to benefit and be used primarily at the Melbourne Beach Public Library. The Town Commission hereby makes a legislative finding that donations to the fund for Brevard County's Melbourne Beach Public Library for increased library programs, books, and services is a valid and exclusively public purpose. The Town Commission notes that pursuant to the Section 170(a), (b)(1)(v), and (c)(1) of U.S. Internal Revenue Code of 1986, donations to a local government for an "exclusively public purpose" are tax deductible to the extent provided by Federal law. It is the intent of the Town Commission that donations, gifts, or bequests to the fund shall be for an exclusively public purpose for the purpose of making such donation, gift, or bequest tax deductible from U.S. income tax to the extent provided by law. Melbourne Beach, Florida Code § 15-90 (c).

To ensure that the individual donor will receive a federal deduction, special language may need to be included on the deed. A deed which was allowed by the IRS was described as follows:

The deed provides that the Property will be preserved for the outdoor recreational use of the general public and that the conservation purposes are to be protected in perpetuity. Donee will hold the Property for the conservation purpose stated in the deed and will be prohibited from transferring it except to other qualified organizations that will hold the Property exclusively for conservation purposes. Donee, as well as Taxpayer, will have the right to enforce the conservation restrictions by appropriate legal proceedings.

*b. Record keeping & Documentation* - In order to deduct the fair market value of donated property with value in excess of \$250 the taxpayer must substantiate the donation by a contemporaneous written acknowledgment furnished by the recipient (Gwinnett County, in this case). There is no prescribed form for the acknowledgment, but it must contain a description of the property, the name of the donee, the date and location of the donation, whether the donee provided any consideration for the donation in the form of goods or services, and a description and good faith estimate of the value of any such goods or services. The acknowledgment must be provided to the taxpayer and dated on or before the date that the taxpayer files his return for the year in which the deduction is claimed (IRS Regulation 1.170A-13).

For property valued at greater than \$500, the taxpayer will be required to file, among other things, IRS Form 8283. The form must be signed by a qualified appraiser and a representative of the donee. Because the IRS regulations also require appraisals to be made when property is donated, the County may wish to require an appraisal before accepting donations. The County must designate a representative and implement such record keeping as is needed to facilitate the signing process. If the County imposes restrictions such as those described above on donations, the records would need to state whether the requirements have been met. Where property is donated in fee simple and the County disposes of the property within two years of receipt, the County must file Form 8262 and provide a copy to the taxpayer. Again, the County needs a procedure to accommodate this requirement

*c. Gift Tax* - Section 2501 of the U.S. Internal Revenue Code imposes a tax on property transferred by gift, but §2522 and Regulation §20.2055 provide a deduction for contributions to charitable organizations, including a provision for contributions of split interests (like conservation easements) allowed by the income tax regulations. Thus the gift of either fee simple property or a qualified conservation contribution is not likely to be taxed.

#### *Additional concerns*

The taxpayer will need professional assistance to determine the amount and allowability of his deduction, and should be aware of the following restrictions:

- Amount of deduction – often, the deduction will be limited to 30% of the taxpayer's adjusted gross income. Some contributions will be deductible up to 50% of the AGI, however, and others will be limited based on the actual income.
- Limitations – particularly in the case of restrictions, the deed must be quite specific as to present and future uses of the property.
- Donative intent – the donation must be motivated by "detached and disinterested generosity," and no *quid pro quo* or benefit must be expected or received in order for the contribution to be deductible. A donation is deductible if, and only to the extent it exceeds

the market value of the benefit received in return (e.g. zoning variances) and only if the excess was given with the intention of making a gift.

- Property subject to a mortgage – no deduction will be permitted unless the mortgagee subordinates its rights in the property to the right of the County to enforce the conservation purposes of the gift in perpetuity. The subordination agreement should be recorded in the County land records immediately before the deed of the conservation easement/restriction.

# Appendix D

## Appendix D: Purchase of Development Rights, Case Studies

### The State of North Carolina

*North Carolina has implemented a program totally aimed at water quality protection and enhancement, and thus provides another example of the use of conservation easements as a protection tool.*

#### **a. Motivation for the program**

The General Assembly established the Clean Water Management Trust Fund in 1996 “to clean up pollution in the State’s surface waters and to protect and conserve those waters that are not yet polluted.” The program is in keeping with the Assembly’s advocacy of non-regulatory, incentive-based programs to help meet the state’s environmental goals.

#### **b. Mechanism for funding**

The statute requires that at the end of each fiscal year, 6.5% of the unreserved credit balance in North Carolina’s General Fund (or a minimum of \$30 million) will go into the CWMTF. Local governments, state agencies and conservation nonprofits apply for grants from this fund through a semi-annual application process. The 2000 session of the General Assembly committed to appropriate \$40 million in FY 2001-02, \$70 million in FY 2002-03 and \$100 million in FY 2003-04.

#### **c. Length of time to develop program**

Unknown.

#### **d. Program logistics/summary**

Interested local governments, state agencies, and nonprofit conservation organizations submit applications for particular projects, with semi-annual deadlines of June 1 and December 1. Projects must fall under the specified categories listed in the evaluation guidelines. Examples include: acquisition of riparian buffers (or easements on said properties) for protection of surface waters or urban drinking water supplies or the establishment of greenways; repair of failing wastewater and septic tank systems; and improvement of stormwater controls. Projects are then quantitatively scored based upon their contribution toward achieving 1) restoration of degraded waters 2) protection of unpolluted waters and 3) establishment of riparian buffers. Programs that are mandated by legislation or regulation are given low priority.

#### **e. Who administers the program, and what are the administrative costs and funding source?**

The CWMTF is an independent agency housed in the Department of Environment and Natural Resources. The eighteen member Board of Trustees establishes criteria, allocates funds and approves grants, makes rules, and hires the executive director. Six members are appointed by the Governor and twelve by the General Assembly. Operations are handled by an executive director, senior scientist, business manager, and administrative assistant, and three field representatives.

***f. Any legislation required for the PDR program to be implemented?***

CWMTF was created by Article 13A; Chapter 113 of the North Carolina General Statutes. A copy is attached.

Also attached for general reference is Article 16; Chapter 113A of the North Carolina General Statutes, *"Conservation Easements Program"*.

***g. Amount of land protected by program and future goals***

Overall, the CWMTF has led to the protection of 1560 miles of riparian buffers and preserved 134,673 acres of land. It has assisted 60 local governments with wastewater improvements, funded 45 restoration and 16 stormwater projects.

\$1.8 million has been granted to date for easement acquisition, with all easement grants going to nonprofit trusts. \$98 million has been granted for the acquisition of riparian buffers, and \$5.8 million for the acquisition of greenways. Local governments have apparently favored acquisition over easement purchase

***h. Other tools used in conservation effort***

Last year, Governor Hunt issued a challenge to add 1 million acres to the state's already permanently protected open space by the end of the year 2009. This "Million Acres Initiative", as it is called, is moving forward with plans and structure to make this more than just a goal. The Department of Natural Resources is the current focal point for coordination and information gathering efforts. The acreage to be added includes farmland, forests, riparian buffers, parkland, and subdivision open space. The CWMTF is a funded subset program that is considered one tool in meeting the million acre objective. Another is the Farmland Preservation Trust Fund, which was first funded by the General Assembly in 1998, but only with \$250,000 in nonrecurring funds, followed by \$500,000 in 1999. The Fund contracted with The Conservation Trust for North Carolina (CTNC) to accept easement applications and administer the funds. Even with this limited funding, CTNC has been able to protect 2700 acres on 14 farms.

***i. Success stories or obstacles?***

Demand for grants far exceeds the funding available. As of 12/1/00, CWMTF had received over \$700 million in requests. The Board approved 234 grants for a total of \$211 million. For the last application cycle, \$11 million was available for allocation among \$59 million in requests.

Numerous success stories apply, with two examples as follows:

1. CWMTF provided a \$500,000 grant challenge to the Land Trust for Central North Carolina to protect land near a drinking water intake on the South Yadkin River. The land trust raised over \$370,000 and matched the original 300-acre acquisition with conservation easements on an additional 200 acres of riparian buffers donated at a value of over \$250,000. The tract of land was transferred to Catawba College where it is used as a wildlife and ecological study area. The land trust believes an additional 400-500 acres of riparian buffers may be donated and over 2000 acres may be available for purchases.
2. The Piedmont Land Trust was provided a \$1 million granting support of Mitchell River Watershed Coalitions' work to acquire and protect 212 acres and to assist four private landowners with conservation transactions on 200 additional acres in the headwaters of the Mitchell River. The Mitchell River is one of the few outstanding resource waters in

the piedmont. After the grant award, the coalition and the local soil and water conservation district have continued working on water quality. Six other donated easements have occurred, with other landowners expressing interest in following.

***j. Partnerships with state agencies or other organizations involved?***

As a state program, CWMTF achieves its goals through the efforts of a variety of local, other state agencies, nonprofit land trusts, and federal matching grant programs. For example, by funding \$40 million in the Conservation Reserve Enhancement Program, it will leverage \$221 million in Department of Agriculture and \$10 million in other funds over the next 6 years.

***k. Availability of written materials***

An excellent source of information on the program is found at website [www.cwmtf.net](http://www.cwmtf.net)

***l. Contact information***

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# Appendix E

## **Recreational Property Act**

### **§ 51-3-20. Purpose of the article.**

The purpose of this article is to encourage owners of land to make land and water areas available to the public for recreational purposes by limiting the owners' liability toward persons entering thereon for recreational purposes.

### **§ 51-3-21. Definitions.**

As used in this article, the term:

- (1) "Charge" means the admission price or fee asked in return for invitation or permission to enter or go upon the land.
- (2) "Land" means land, roads, water, watercourses, private ways and buildings, structures, and machinery or equipment when attached to the realty.
- (3) "Owner" means the possessor of a fee interest, a tenant, a lessee, an occupant, or a person in control of the premises.
- (4) "Recreational purpose" includes, but is not limited to, any of the following or any combination thereof: hunting, fishing, swimming, boating, camping, picnicking, hiking, pleasure driving, nature study, water skiing, winter sports, and viewing or enjoying historical, archeological, scenic, or scientific sites.

### **§ 51-3-22. Duty of owner of land to those using same for recreation generally.**

Except as specifically recognized by or provided in Code § 51-3-25, an owner of land owes no duty of care to keep the premises safe for entry or use by others for recreational purposes or to give any warning of a dangerous condition, use, structure, or activity on the premises to persons entering for recreational purposes.

### **§ 51-3-23. Effect of invitation or permission to use land for recreation.**

Except as specifically recognized by or provided in Code § 51-3-25, an owner of land who either directly or indirectly invites or permits without charge any person to use the property for recreational purposes does not thereby:

- (1) Extend any assurance that the premises are safe for any purpose;
- (2) Confer upon such person the legal status of an invitee or licensee to whom a duty of care is owed; or
- (3) Assume responsibility for or incur liability for any injury to person or property caused by an act of omission of such persons.

### **§ 51-3-25. Certain liability not limited.**

Nothing in this article limits in any way any liability which otherwise exists:

- (1) For willful or malicious failure to guard or warn against a dangerous condition, use, structure, or activity; or
- (2) For injury suffered in any case when the owner of land charges the person or persons who enter or go on the land for the recreational use thereof, except that, in the case of land leased to the state or a subdivision

thereof any, consideration received by the owner for the lease will not be deemed a charge within the meaning of this Code section.

§ 51-3-26. Construction of article.

Nothing in this article shall be construed to:

- (1) Create a duty of care or ground of liability for injury to persons or property; or
  - (2) Relieve any person using the land of another for recreational purposes from any obligation which he may have in the absence of this article to exercise care in his use of the land and in his activities thereon or from the legal consequences of failure to employ such care.
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# **Georgia Uniform Conservation Easement Act**

## **ARTICLE 1**

### **UNIFORM CONSERVATION EASEMENTS**

#### **44-10-1. Short title.**

This article shall be known and may be cited as the "Georgia Uniform Conservation Easement Act."

#### **44-10-2. Definitions.**

As used in this article, the term:

(1) "Conservation easement" means a nonpossessory interest of a holder in real property imposing limitations or affirmative obligations, the purposes of which include retaining or protecting natural, scenic, or open-space values of real property; assuring its availability for agricultural, forest, recreational, or open-space use; protecting natural resources; maintaining or enhancing air or water quality; or preserving the historical, architectural, archeological, or cultural aspects of real property.

(2) "Holder" means:

(A) governmental body empowered to hold an interest in real property under the laws of this state or the United States; or

(B) A charitable corporation, charitable association, or charitable trust, the purposes or powers of which include retaining or protecting the natural, scenic, or open-space values of real property; assuring the availability of real property for agricultural, forest, recreational, or open-space use; protecting natural resources; maintaining or enhancing air or water quality; or preserving the historical, architectural, archeological, or cultural aspects of real property.

(3) "Third-party right of enforcement" means a right provided in a conservation easement to enforce any of its terms granted to a governmental body, charitable corporation, charitable association, or charitable trust, which, although eligible to be a holder, is not a holder.

#### **44-10-3. Creation or alteration of conservation easements; acceptance; duration; effect on existing rights and duties; limitation of liability.**

(a) Except as otherwise provided in this article, a conservation easement may be created, conveyed, recorded, assigned, released, modified, terminated, or otherwise altered or affected in the same manner as other easements, except that a conservation easement may not be created or expanded by the exercise of the power of eminent domain.

(b) No right or duty in favor of or against a holder and no right in favor of a person having a third-party right of enforcement arises under a conservation easement before its acceptance by the holder and a recordation of the acceptance.

(c) Except as provided in subsection (c) of Code Section 44-10-4, a conservation easement is unlimited in duration unless the instrument creating it otherwise provides.

(d) An interest in real property in existence at the time a conservation easement is created is not impaired by it unless the owner of the interest is a party to the conservation easement or consents to it.

(e) The ownership or attempted enforcement of rights held by the holder of an easement shall not subject such holder to any liability for any damage or injury that may be suffered by any person on the property or as a result of the condition of such property encumbered by a conservation easement.

**44-10-4. Actions affecting easements; parties; power of court to modify or terminate easement.**

(a) An action affecting a conservation easement may be brought by:

(1) An owner of an interest in the real property burdened by the easement;

(2) A holder of the easement;

(3) A person having a third-party right of enforcement; or

(4) A person authorized by other law.

(b) The easement holder shall be a necessary party in any proceeding of or before any governmental agency which may result in a license, permit, or order for any demolition, alteration, or construction on the property.

(c) This article does not affect the power of a court to modify or terminate a conservation easement in accordance with the principles of law and equity.

#### **44-10-5. Validity of easement.**

A conservation easement is valid even though:

- (1) It is not appurtenant to an interest in real property;
- (2) It can be or has been assigned to another holder;
- (3) It is not of a character that has been recognized traditionally at common law;
- (4) It imposes a negative burden;
- (5) It imposes affirmative obligations upon the owner of an interest in the burdened property or upon the holder;
- (6) The benefit does not touch or concern real property; or
- (7) There is no privity of estate or of contract.

#### **44-10-6. Interests covered by article; interests not invalidated by article.**

(a) This article applies to any interest created after July 1, 1992, which complies with this article, whether designated as a conservation or facade easement, or as a covenant, protective covenant, equitable servitude, restriction, easement, or otherwise.

(b) This article applies to any interest created before July 1, 1992, if such interest would have been enforceable had such interest been created after July 1, 1992, unless retroactive application contravenes the Constitution or laws of this state or the United States.

(c) This article does not invalidate any interest, whether designated as a conservation or preservation or facade easement or as a covenant, protective covenant, equitable servitude, restriction, easement, or otherwise, that is enforceable under other law of this state.

#### **44-10-7. Construction and application of article to effect uniformity of laws.**

This article shall be applied and construed to effectuate its general purpose to make uniform the laws with respect to the subject of this article among states enacting it.

#### **44-10-8. Recordation of easements; revaluation of encumbered property; appeals.**

A conservation easement may be recorded in the office of the clerk of the superior court of the county where the land is located. Such recording shall be notice to the board of tax assessors of such county of the conveyance of the conservation easement and shall entitle the owner to a revaluation of the encumbered real property so as to reflect the

existence of the encumbrance on the next succeeding tax digest of the county. Any owner who records a conservation easement and who is aggrieved by a revaluation or lack thereof under this Code section may appeal to the board of equalization and may appeal from the decision of the board of equalization in accordance with Code Section 48-5-311.

# Appendix F

## Qualitative Evaluation

*The following criteria could be used to determine which specific parcels of land are included in the Gwinnett County Open Space and Greenways System. The ranking system used to evaluate each criteria of the parcel in question is itemized below. All criteria must be ranked separately and combined to determine the overall ranking. Do not attempt to justify the ranking of a property based upon one criterion. A score of 50 and higher indicates that a parcel should be included within the System. A score of 30 to 49 indicates that the parcel should be considered for inclusion. A score of 0 to 29 indicates that the parcel should not be included within the System at this time.*

**Location**—An evaluation of where the property is located within the County. (Note: Location is the position of the parcel within rural, suburban or urban areas of the County. A parcel that is surrounded by highly-urbanized lands would rate higher than a parcel in a rural area because of the potential for imminent loss). For parcels of 25 acres or less that are located in the most densely populated areas of the County, add a multiplier of 2 to the score.

1—Parcel is located in a rural area of County, but not within a sensitive watershed area.

2—Parcel is located within an urban growth area, but outside a sensitive watershed area, and the area is not experiencing immediate suburban growth and development.

3—Parcel is located within an urban growth area, outside a sensitive watershed area, and within an area which is experiencing rapid growth.

4—Parcel is located within an urban growth area, is within a sensitive watershed area, and is within an area experiencing rapid growth.

5—Parcel is located within an urban growth area, outside a sensitive watershed area, and is included within a project for which development plans have been submitted to the County for approval.

6—Parcel is located within an urban growth area, is located within a sensitive watershed area, and is included within a project for which development plans have been submitted to the County for approval.

7—Parcel is located within an urban area of the County, outside a sensitive watershed area, and is currently surrounded by urban/suburban development.

8—Parcel is located within an urban area of the County, is located within a sensitive watershed area, and is currently surrounded by urban/suburban development.

**Linkage** – Defines the importance of the parcel within the overall greenway system and its ability to serve as a vital link or connector to the overall greenway system.

0—Parcel does not link to any portion of the greenway system.

1—Parcel is at the end of an undeveloped greenway corridor, and does not link to any existing adjacent development portions of the County.

3—Parcel is at the end of an undeveloped greenway corridor, and links to surrounding parks, residential neighborhoods, schools, businesses or other community destinations.

4—Parcel is located in the mid section of an undeveloped greenway corridor and also links to a surrounding parks, residential neighborhoods, schools, businesses or other community destinations.

5—Parcel is located between two segments of existing developed greenway facilities, as well as to surrounding park, residential neighborhoods, schools, businesses or other community facility.

**Proximity**—Where is the parcel of land located in terms of its proximity to surrounding, existing public/private open space parcels, schools, activity centers, residential neighborhoods or community destinations? (Note: Proximity is the relative position of the parcel of land to other important landscapes throughout the County. A potential parcel gets a higher score if it is located in close proximity to an important landscape. It gets a lower score if it is farther away from an important landscape.)

1—Parcel is two miles from an existing park, school, activity center, residential neighborhood or community destination.

2—Parcel is between one-quarter mile and two miles from an existing park, school, activity center, residential neighborhood or community destination.

3—Parcel is separated from existing park, school, activity center, and residential neighborhood or community destination by more than one property or less than one-quarter mile.

4—Parcel is separated from existing park, school, activity center, residential neighborhood or community destination by one property.

5—The property lines of the parcel abut an existing park, school, activity center, residential neighborhood or community destination.

**Accessibility**—The relationship of the property to other transportation routes.

1—Parcel is not accessible to the public. Parcel is totally isolated from all existing and proposed forms of access.

2—Parcel is not currently accessible to the public, but is in close proximity to at least one form of existing public access. Adjacent landowners are not willing to grant right of public access.

3—Parcel has at least one form of public access, adjacent property owners are willing to grant the right of public access.

4—Parcel has at least one form of public access but does not have existing infrastructure in place to provide immediate public access.

5—Parcel has at least two forms of public access and can be immediately accessed by public.

6--Parcel is located within 1/4 mile of a mass transit station.

**Aesthetic Quality**—An evaluation of the property's scenic qualities or outstanding physical characteristics, such as significant geologic formation, unique vegetation, outstanding views of surrounding landscape, or is a significant parcel of land due to the composition of its natural resources.

1—Parcel has little or no aesthetic quality, and very little natural value remains.

2—Parcel has very limited aesthetic quality and would require extensive human modifications to become an appealing property.

3—Parcel has a variety of dispersed aesthetic qualities which, if successfully exposed, would make the site appealing and a valued natural resource.

4—Parcel has one significant aesthetic quality which makes it an appealing and attractive natural resource.

5—Parcel has several outstanding aesthetic qualities which have made it an attractive, noteworthy property and one which serves as a natural landmark within the overall landscape.

**Use/Utility**—An evaluation of the property's ability to accept a number of specific uses for active or passive recreation, scientific (biological, zoological), or educational (parochial, college) purposes.

1—Parcel is unsuitable for any form of human use.

2—Parcel has limited potential for human use. The parcel can support limited passive recreation if this recreation is carefully managed. The parcel can be used for limited scientific or educational purposes.

3—Parcel has opportunity for unlimited passive recreation use, and can support a limited range of active recreation uses. Parcel has limited scientific and educational value.

4—Parcel provides opportunity for unlimited passive recreation uses, and is capable of supporting a wide range of active recreation uses. Parcel has several qualities which make it desirable for scientific or educational purposes.

5—Parcel provides opportunity for unlimited range of passive and active recreation uses. Parcel has several qualities which make it desirable for educational and scientific purposes.

**On Open Space and Greenways Master Plan**—The property is located within one of the designated land types in the adopted Gwinnett County Open Space and Greenways Plan.

1—Parcel is not located within selected land types as illustrated on Open Space and Greenways Plan, nor is it included within land types as defined by Open Space and Greenways Plan.

2—Parcel is not located within selected land types as illustrated on Open Space and Greenways Plan, nor is it included within land types as defined by Open Space and Greenways Plan, but should receive consideration for inclusion within Plan because it has received a high overall ranking.

3—Parcel is located within selected land types as illustrated on Open Space and Greenways Plan, and is included within land types as defined by Open Space and Greenways Plan, but is not located in a high priority category.

4—Parcel is located within selected land types as illustrated on Open Space and Greenways Plan, and is included within land types as defined by Open Space and Greenways Plan, and is located in a high priority category.

5—Parcel is located within selected land types as illustrated on Open Space and Greenways Plan, and is included within land types as defined by Open Space and Greenways Plan, and is located in a high priority category, and requires immediate action for protection.

**Threat of Loss**—An evaluation of the property in terms of the current land use and the pace of urban/suburban growth.

1—Parcel is guaranteed to be conserved and protected by a deed restriction, easement, or established regulatory authority in its natural condition.

2—Some regulatory authority currently protects property in its natural condition. Potential for urban/suburban development is low.

3—Regulatory authority does not provide adequate protection of property in its natural condition. Property is considered average for potential urban/suburban development.

4—Current owner has expressed a desire to sell property or develop property in near future. No regulatory authority exists to protect property in its natural condition. Property is considered excellent for potential urban/suburban development.

5—Parcel is slated for immediate development. No regulatory authority exists to protect property in its natural condition.

**Rarity**—An evaluation of whether the parcel contains rare species of vegetation, supports a habitat for wildlife which is rapidly disappearing within the County, or is regarded as a property which possesses significant natural composition.

1—Parcel is not considered rare, does not possess any unique vegetation, wildlife habitat, or natural composition, and is quite commonly found in other portions of the County.

2—Parcel is considered significant because of vegetation, wildlife habitat, or natural composition that is significant, but is common in other parts of the County.

3—Parcel possesses good examples of rare vegetation, or wildlife habitat, or natural composition, and is common only to selected regions of the County.

4—Parcel contains rare vegetation, or wildlife habitat, or natural composition, and is found only in a few properties located within the County.

5—Parcel contains rare vegetation, or wildlife habitat, or natural composition, and is considered to be the only parcel within the County to exhibit these resources.

**Floodplain Protection**—An evaluation of the property reveals that it contains floodplain and drainage basins that are part of the County's stormwater or drinking water system, or the stormwater or drinking water system for another city government. The stream is subject to the Clean Water Act permitting process due to the stormwater

or drinking water system. (Note: for properties located along “high quality streams” as designated by the State of Georgia, add a multiplier of 2 to the total score)

1—Parcel contains a floodplain and drainage conveyance, but the stream is not a regulated stream of the state or federal government.

2—Parcel contains a floodplain and drainage conveyance, and is a federal, state or County regulated stream.

3—Parcel contains a floodplain and drainage conveyance, and is a federal, state or County regulated stream, but is not a primary source for a stormwater or drinking water system, but is a tributary stream to the system.

4—Parcel contains a floodplain and drainage conveyance, is a federal, state or County regulated stream, is on the primary stream of the stormwater or drinking water system, but has limited development potential due to frequent flooding.

5—Parcel contains a floodplain and drainage conveyance, is a federal, state or County regulated stream, is on the primary stream of the stormwater or drinking water system, and has high development potential but no approved development plan.

6—Parcel contains a floodplain and drainage conveyance, is a federal, state or County regulated stream, is on the primary stream of the waste water or drinking water system, and has high development potential and a development plan has been submitted to the County for approval.

**Cultural/Historic Resources**—An evaluation of whether the parcel contains documented cultural resources, listed historic buildings or landscapes, or known cultural resources, or historical buildings or landscapes that are rapidly disappearing or being encroached upon within the County. (Note: For properties that are eligible for the Registry of Historic Places, or for state or federal lists of Protected Properties, add a multiplier of 2 to the total score)

1—Parcel does not contain documented cultural resources, or listed historic building or landscapes, or known cultural resources, or historical buildings and landscapes.

2—Parcel is considered significant because of documented or known cultural resources, listed historic buildings or landscapes, or historical buildings or landscapes, but these are common throughout the County.

3—Parcel possesses good examples of documented or known cultural resources, listed historic buildings or landscapes, or historical buildings or landscapes, but these are common to selected sections of the County.

4—Parcel contains documented or known cultural resources, listed historic buildings or landscapes, or historical buildings or landscapes, that are rare in the County.

5—Parcel contains documented or known cultural resources, listed historic buildings or landscapes, or historical buildings or landscapes that are considered to be the best, or only parcel within the County to contain these resources.

**Manageability**—An evaluation of the parcel based upon the ability of a public or private agency to effectively manage the land so that it does not become a nuisance to the community.

1—Parcel is unmanageable due to location, size. Proper management from a public or private agency, other than the County, is unlikely. Landform is unmanageable.

2—Parcel is difficult to manage due to frequent occurrence of natural disasters, because it is located outside reasonable distance for proper management, and is too expensive to effectively manage. Landform is difficult to manage. Proper management may be inefficient.

3—Parcel will require constant management. Landform provides opportunity for effective management. Public or private agency is able to assume responsibilities. Difficult location for management.

4—Parcel will require regular management. Landform lends itself to ease of management. Public or private agency can assume immediate management. Location of parcel is convenient for management.

5—Parcel requires little management. Public or private agency is already managing property.

## QUANTITATIVE EVALUATION

*The following criteria could be used to determine which specific parcels of land are to be included within the Open Space and Greenway System.*

**Cost**—A complete financial evaluation should be prepared by the County to determine the value of the property, whether the County will be required to purchase the property, if the sale of the property to the County will result in a loss of tax revenues and the ability of the County to purchase the land.

Present tax value of property \$ \_\_\_\_\_

Appraised value of property \$ \_\_\_\_\_

\$ \_\_\_\_\_

\$

\_\_\_\_\_ Parcel will require purchase at fair market value.

Parcel can be purchased at less than fair market value.

\_\_\_\_\_ Parcel can be purchased at a negotiated price.

Parcel will be donated to County.

\_\_\_\_\_ Sale of property will result in a loss of tax revenues that are considerable.

\_\_\_\_\_Sale of property will result in a loss of tax revenues that are considered to be insignificant.

\_\_\_\_ County is unable to purchase property.

\_\_\_\_\_ County is able to allocate partial funds for purchase of property, must find another source of funding.

\_\_\_\_\_County is able to obtain full title to property in part through payment of funds to landowner and donation of property to County.

\_\_\_\_\_ No cost is involved in obtaining full title to property.

**Size of Parcel:**                      acres

**Shape of Parcel:** Please attach survey or a reproduction of property configuration from County Planning GIS maps.

## Property Evaluation Form

**Name of Parcel:**

**File No:**

Tax Map Parcel Number:

Owner/Phone:

Address:

### SITE CHARACTERISTICS

Topography:

Vegetation:

Stream or lake:

Soils:

Utility lines, easements:

Existing structures & conditions:

Flood Plain:

Wetlands:

Accessible by the following road type: Residential \_\_\_\_ Collector \_\_\_\_ Arterial \_\_\_\_

Other (please specify) \_\_\_\_\_

Unique features: \_\_\_\_\_

### SITE LIABILITIES

(Note concerns about erosion, trash, dumping, mosquitoes, water, pests, access, maintenance & policing capabilities, etc.):

Level 1 Environmental assessment is available: Yes \_\_\_\_ No \_\_\_\_

**USE/UTILITY:** (good, fair, poor?)

Unique flora/fauna: \_\_\_\_\_

Wildlife habitat: \_\_\_\_\_

Groundwater recharge: \_\_\_\_\_

Flood protection: \_\_\_\_\_

Active recreation: \_\_\_\_\_

Passive recreation: \_\_\_\_\_

Historic interpretation: \_\_\_\_\_

Scientific research: \_\_\_\_\_

**RANKING:****Overall Score:**\_\_\_\_\_ (from Qualitative Criteria)

<u>Criteria</u>	<u>Score*</u>	<u>Comments</u>
Location	_____	_____
Linkage	_____	_____
Proximity	_____	_____
Accessibility	_____	_____
Aesthetic Quality	_____	_____
Use/Utility	_____	_____
On Open Space & Greenway Plan	_____	_____
Threat of Loss	_____	_____
Rarity	_____	_____
Flood Plain Protection	_____	_____
Cultural Historic Resources	_____	_____

**SUMMARY:**

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**STAFF RECOMMENDATION:** (For management, regulation or acquisition)

Zoning:\_\_\_\_\_

Purchase:\_\_\_\_\_

Reservation:\_\_\_\_\_

Density Credits:\_\_\_\_\_

Dedication:\_\_\_\_\_

Fee-in-Lieu:\_\_\_\_\_

Accept as Gift:\_\_\_\_\_

Lease:\_\_\_\_\_

Easement Required:\_\_\_\_\_

Option:\_\_\_\_\_

TDR:\_\_\_\_\_

PDR:\_\_\_\_\_

Non-profit  
organization:\_\_\_\_\_

**Completed By:**\_\_\_\_\_ **Date**\_\_\_\_\_

# Appendix G

## *Appendix G*

### **Grant Funds**

#### *Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21)*

One of the primary sources of federal funding for the development of on-road and off-road trail facilities is through the Transportation Equity Act of 1998 (TEA-21), formerly the Intermodal Surface Transportation Efficiency Act (ISTEA). ISTEA provided millions of dollars in funding for bicycle and pedestrian transportation projects across the country and will provide millions more as TEA-21.

Historically, Gwinnett County has worked closely with the Atlanta Regional Commission to allocate funds from the TEA-21 program to on-road and off-road bicycle and pedestrian projects, including greenway trails. Currently, several projects are in various stages of development within Gwinnett County Department of Transportation (DOT), including numerous sidewalk projects and several greenway projects.

There are several sections of TEA-21 that support the development of bicycle and pedestrian transportation corridors. Gwinnett County DOT can work with the ARC to utilize funding from any of these subsets of TEA-21. Those sections that apply to the creation of greenways, sidewalks and bikeways include:

#### *A. Surface Transportation Program (STP) funds*

These funds can be used for bicycle and pedestrian facility construction or non-construction projects such as brochures, public service announcements and route maps. The projects must be related to bicycle and pedestrian transportation and must be part of the Long Range Transportation Plan. These funds are programmed by the Metropolitan Planning Organization (MPO) in the Transportation Improvement Program.

#### *B. Transportation Enhancements Program*

A total of \$3.6 billion is available through TEA-21 for Transportation Enhancements. Ten percent of Georgia's annual STP funds (approximately \$107 million over the next six years) are available for enhancements, which include projects such as trails, greenways, sidewalks, signage, bikeways, safety education and wildlife underpasses. There is usually a 20 percent match of local funds required (some states will accept donations of services, materials or land in lieu of cash) and there are several key requirements that projects must meet in order to receive these funds. The Georgia DOT administers TEA-21 funding and should be contacted for further details.

#### *C. Transit Enhancements Program*

Transit Enhancement Activities. This will generate approximately \$30 million annually for these activities, which will then be divided among the 125 largest

urban areas in the U. S. Activities eligible for funding include pedestrian access and walkways, bicycle access, bike storage facilities, bike-on-bus racks, and transit connections to parks within the transit service area.

#### *D. Recreational Trails Program*

A component of TEA-21, the Recreational Trails Program is a funding source to assist with the development of non-motorized and motorized trails. The Program uses funds paid into the Highway Trust Fund from fees on non-highway recreation fuel used by off-road vehicles and camping equipment. This money can be spent on the acquisition of easements and fee simple title to property, trail development, construction and maintenance. Project amounts vary by state, with most ranging from \$2,000 to \$30,000.

Through state agencies, funds are available to private and public sector organizations. Projects are 80 percent federally funded, and grant recipients must provide a 20 percent match. Federal agency project sponsors or other federal programs may provide additional federal shareS up to 95 percent. Local matches can be in the form of donations of services, materials or land. Projects funded must be consistent with the Statewide Comprehensive Outdoor Recreation Plan.

#### *Congestion Mitigation and Air Quality Improvement Program (CMAQ)*

The CMAQ program was created to reduce congestion on local streets and improve air quality. Funds are available to communities designated as “non-attainment” areas for air quality, meaning the air is more polluted than federal standards allow. Funds are also available to “maintenance” areas, former non-attainment areas that are now in compliance. Funds are distributed to states based on population by County and the severity of air quality problems. A 20 percent local match is required.

#### *Community Development Block Grant Program*

The U.S. Department of Housing and Urban Development (HUD) offers financial grants to communities for neighborhood revitalization, economic development, and improvements to community facilities and services, especially in low and moderate-income areas. Several communities have used HUD funds to develop greenways, including the Boulding Branch Greenway in High Point, Georgia.

#### *Land and Water Conservation Fund (LWCF)*

This federal funding source was established in 1965 to provide park and recreation opportunities to residents throughout the United States. Money for the fund comes from the sale or lease of nonrenewable resources, primarily federal offshore oil and gas leases and surplus federal land sales. LWCF funds are used by federal agencies to acquire additions to National Parks, Forests, and Wildlife Refuges. In the past, Congress has also appropriated LWCF moneys for so-called “state-side” projects. These

“state-side” LWCF grants can be used by communities to acquire and build a variety of park and recreation facilities, including trails and greenways.

“State-side” LWCF funds are annually distributed by the National Park Service through the Georgia Department of Natural Resources (DNR). Communities must match LWCF grants with 50 percent of the local project costs through in-kind services or cash. All projects funded by LWCF grants must be used exclusively for recreation purposes, in perpetuity. Funding for this program has not been available for several years, although funds could be allocated in the future.

#### *Watershed Protection and Flood Prevention (Small Watersheds) Grants*

The USDA Natural Resource Conservation Service (NRCS) provides funding to state and local agencies or nonprofit organizations authorized to carry out, maintain and operate watershed improvements involving less than 250,000 acres. The NRCS provides financial and technical assistance to eligible projects to improve watershed protection, flood prevention, sedimentation control, public water-based fish and wildlife enhancements, and recreation planning. The NRCS requires a 50 percent local match for public recreation, and fish and wildlife projects.

#### *Conservation Reserve Program*

The U. S. Department of Agriculture, through its Agricultural Stabilization and Conservation Service, provides payments to farm owners and operators to place highly erodible or environmentally sensitive landscapes into a 10-15 year conservation contract. The participant, in return for annual payments during this period, agrees to implement a conservation plan approved by the local conservation district for converting these sensitive lands to a less intensive use. Individuals, associations, corporations, estates, trusts, cities, counties and other entities are eligible for this program. This program can be used to fund the maintenance of open space and non-public use greenways along water bodies and ridgelines.

#### *Wetlands Reserve Program*

The Department of Agriculture also provides direct payments to private landowners that agree to place sensitive wetlands under permanent easements. This program can be used to fund the protection of open space and greenways within riparian corridors. It is administered by the NRCS in Georgia.

#### *Hazard Mitigation Grant Program*

The Federal Emergency Management Agency (FEMA) provides grants to state and local governments for implementing long-term hazard mitigation measures following a major disaster declaration. Eligible projects include the acquisition and relocation of repetitive flood structures. Such lands, once acquired, can be converted into greenways for flood mitigation purposes. A 25 percent local match is required. All applications

must be submitted no later than 90 days following FEMA's approval of the State Hazard Mitigation plan.

#### *Flood Mitigation Assistance*

This FEMA program provides funds to states and communities to help reduce the long-term risk of flood damage to structures. Eligible projects include acquisition and relocation of insured structures. Grantees must participate in the National Flood Insurance Program and a 25 percent local match is required. The total amount of Flood Mitigation Assistance Grants provided during any 5-year period cannot exceed \$10 million to any state or \$3.3 million to any community.

#### *Conservation Contracts*

The USDA Farm Service Agency can forgive debt from Farm Loan Program loans in exchange for conservation contracts on environmentally sensitive portions of a borrower's property. Contracts can be set up for conservation, recreational and wildlife purposes on farm property, including properties adjacent to streams and rivers. Interested individual borrowers should contact their local Farm Service Agency office to apply.

#### *Local Businesses*

Local industries and private businesses may agree to provide support for development of greenways in Gwinnett County through:

- donations of cash to a specific greenway segment
- donations of services by corporations to reduce the cost of greenway implementation, including equipment and labor to construct and install elements of a trail
- reductions in the cost of materials purchased from local businesses that support greenway implementation and can supply essential products for facility development

This method of raising funds requires a great deal of staff coordination. One example of a successful endeavor of this type is the Swift Creek Recycled Greenway in Cary, North Carolina. A total of \$40,000 in donated construction materials and labor made this trail an award-winning demonstration project. (Some materials used in the "recycled trail" were considered waste materials by local industries!)

#### *Trail Sponsors*

A sponsorship program for trail amenities allows for smaller donations to be received both from individuals and businesses. The program must be well-planned and organized, with design standards and associated costs established for each amenity. Project elements which may be funded can include wayside exhibits, benches, trash receptacles, entry signage and picnic areas. Usually, plaques recognizing the individual

contributors are placed on the constructed amenities or at a prominent entry point to the trail.

#### *Volunteer Work*

Community volunteers may help with trail construction, as well as with fund raising. Potential sources of volunteer labor in Gwinnett County could include local bicyclists, local historical groups, neighborhood associations, local churches, conservation groups, school groups and local civic clubs such as Kiwanis, Rotary and Lions Clubs.

A good example of a volunteer greenway program is Cheyenne, Wyoming, which generated an impressive amount of community support and volunteer work. The program has the unusual problem of having to insist that volunteers wait to begin landscaping trails until construction is completed. A manual for greenway volunteers was developed in 1994 to guide and regulate volunteer work. The manual includes a description of appropriate volunteer efforts, request forms, waiver and release forms, and a completion form (volunteers are asked to summarize their accomplishments). Written guidelines are also provided for volunteer work in 100-year floodplains.

Locally, volunteers were used on two different Saturdays to plant trees, shrubs and bulbs at Freedom Park. Park and Recreation staff, landscape architects and local nursery volunteers led workforce groups consisting of individuals, families, school groups and others in this planting effort. Local nurseries donated digging equipment, plant materials, fertilizer and other items to the effort as well.

To organize volunteer activity, Cheyenne developed an “Adopt-a-Spot” program. Participants who adopt a segment of trail are responsible for periodic trash pick-up, but can also install landscaping, prune trail-side vegetation, develop wildlife enhancement projects, and install site amenities. All improvements must be consistent with the Greenway Development Plan and must be approved by the local Greenway Coordinator. Adopt-a-Spot volunteers are allowed to display their names on a small sign along the adopted section of greenway.

#### *“Buy-a-Foot” Programs*

“Buy-a-Foot” programs have been successful in raising both funds and awareness for trail and greenway projects across the country. Under local initiatives, citizens are encouraged to purchase one linear foot of the greenway by donating the cost of construction. An excellent example of a successful endeavor is the High Point Greenway “Buy-a-Foot” campaign, in which linear greenway “feet” were sold at a cost of \$25 per foot. Those who donated were given a greenway T-shirt and a certificate. This project provided an estimated \$5,000 in funds.

#### *American Greenways DuPont Awards*

The Conservation Fund’s American Greenways Program has teamed with the DuPont Corporation and the National Geographic Society to award small grants (\$250 to \$2,000)

to stimulate the planning, design and development of greenways. These grants can be used for activities such as mapping, conducting ecological assessments, surveying land, holding conferences, developing brochures, producing interpretive displays, incorporating land trusts, building trails, and other creative projects. Grants cannot be used for academic research, institutional support, lobbying or political activities. For more information, contact the Conservation Fund at (703) 525-6300.

#### *REI Environmental Grants*

REI (Recreational Equipment Incorporated) awards grants to organizations in protecting and enhancing natural resources for outdoor recreation. Grants of up to \$2,000 are available through this program and can be used for:

1. Preservation of wild lands and open space
2. Advocacy-oriented education for the general public on conservation issues
3. Building the membership base of a conservation organization
4. Direct citizen action (lobbying) campaigns for public land and water recreation issues
5. projects that serve to organize a trail constituency or enhance the effectiveness of a trail organization's work as an advocate

Grants cannot be used for trail construction and maintenance. For more information, call REI's grant line at (253) 395-7100.

# Appendix H

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# **SMALL BUSINESS LIABILITY PROTECTION AND BROWNFIELD REVITALIZATION ACT**

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**PREPARED FOR THE NBA  
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H.R. 2869 – SUMMARY OF KEY BROWNFIELD PROVISIONS,  
AS PASSED BY CONGRESS AND  
SIGNED BY PRESIDENT BUSH ON JANUARY 11  
(INCORPORATES PROVISIONS OF S.350)**

## ***Title II – Brownfield Revitalization and Environmental Restoration***

### **SUB-TITLE A – FUNDING**

- \$200 million per year (thru '06) for grants to states, local governments, and tribes, as well as entities such as quasi-public redevelopment agencies and authorities
- money to be used for (1) site assessment grants—typically, up to \$200,000, but the EPA has discretion to bump this to \$350,000 under some circumstances); and (2) grants for cleanup—both for direct remediation grants, up to \$200,000, to governments or non-profits (requires 20 percent match), as well as capital for RLFs, up to \$1 million (with less burdensome requirements)
- funding criteria include the extent to which the money will be used to protect human health and the environment; spur redevelopment and create jobs; preserve open space and parks; represent a “fair” distribution between urban and rural areas; and involve the local community
- up to \$50 million (25 percent of appropriation if less than \$200 million) may be used for sites with petroleum contamination
- insurance premiums are now an eligible use of funds
- authorizes the EPA to operate a brownfield program that includes training, research, and technical assistance activities

### **SUB-TITLE B – LIABILITY CLARIFICATIONS: PROVIDES SUPERFUND LIABILITY RELIEF TO:**

- contiguous property owners, who provide cooperation and access for the cleanup
- prospective purchasers, who are not responsible for contamination at the site, and who do not impede its cleanup (bill includes windfall lien provisions for sites where the government pays for cleanup, thus enhancing the fair market value of the property)
- innocent landowners

### **SUB-TITLE C – STATE RESPONSE PROGRAMS**

- authorizes \$50 million per year (thru '06) for grants to states and tribes to establish and enhance state VCPs/response programs
- states must maintain a “public record of sites” addressed through their programs, and update it annually
- provides for deferral of listing sites on NPL list if a state is taking action
- establishes **FINALITY**—sites addressed thru state programs are protected from EPA enforcement and cost recovery actions under CERCLA—*except...*
- in the case of **RE-OPENERS**—situations in which EPA can come back with an enforcement action, are preserved in specifically defined situations, including:
  - migration of contamination across state lines or onto federal property, if releases of threat of releases present an imminent and substantial endangerment; new information shows that a cleanup is no longer protective; or a state requests intervention
- EPA must consult with the state on re-opener situations
- citizens may request a state to conduct an assessment at a specific site, and a state must “appropriately” respond